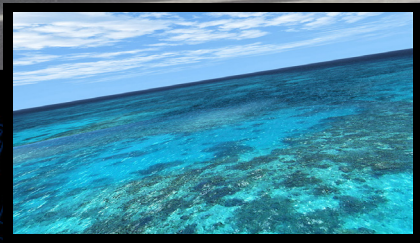
REX essential+ HD

High-Definition Environmental & Weather Package

REX essential+ OVERDRIVE HD

High-Definition Environmental & Weather Package

VERSION 3



PRODUCT MANUAL V3.3 / 3.7

UPDATED JUNE 2013

REX GAME STUDIOS

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REX is a **15 time award-winning**, photo-realistic texture package, weather engine & flight planner for FSX, PREPAR3D, FS2004 and X-Plane.

REX allows control of environment, water and airport textures, as well as lighting effects that are critical to the enjoyment and immersion within the flight simulator experience. All of these features may be fully manipulated to your individual tastes.

New in REX is the WXPLUS mode, a second weather engine mode utilizing the weather theme process which injects live, historic or even random weather into FSX/P3D. We have also included the Synoptic and Micro weather station features which adds more depth. Weather Engine Plus injects real weather including real winds and temperatures aloft. To sum it up, there are two modes in which to inject weather into FSX/P3D: the Standard Station mode or the Weather Engine Plus mode.

Also included within REX are the synoptic and micro weather station processes which allow for trans-oceanic flights utilizing realtime weather.

This technique populates areas with few weather stations for a more robust weather experience allowing you to experience the effect of real frontal systems. Synoptic weather stations handle large areas of weather, which in turn produces the effect of large weather systems. Micro Weather Stations help with transitioning from local weather conditions, helping with fog, wind and precipitation transitions.

Microsoft Flight Simulator X

PREPAR3D®

Our new DOWNLOAD CENTER allows us to provide new FSX and Prepar3D content to our user-base in a timely manner.

REX EDGE Technology is REX Game Studios®' version of its own *"cloud"* technology. It's an array of dedicated servers, setup to handle the transfer of large amounts of data to be utilized not only within REX, but in all future projects. This technology has allowed us to expand the connectivity of REX. All REX users are now connected in various ways to each other, thus allowing them to share their creations with other folks around the world who are using REX.

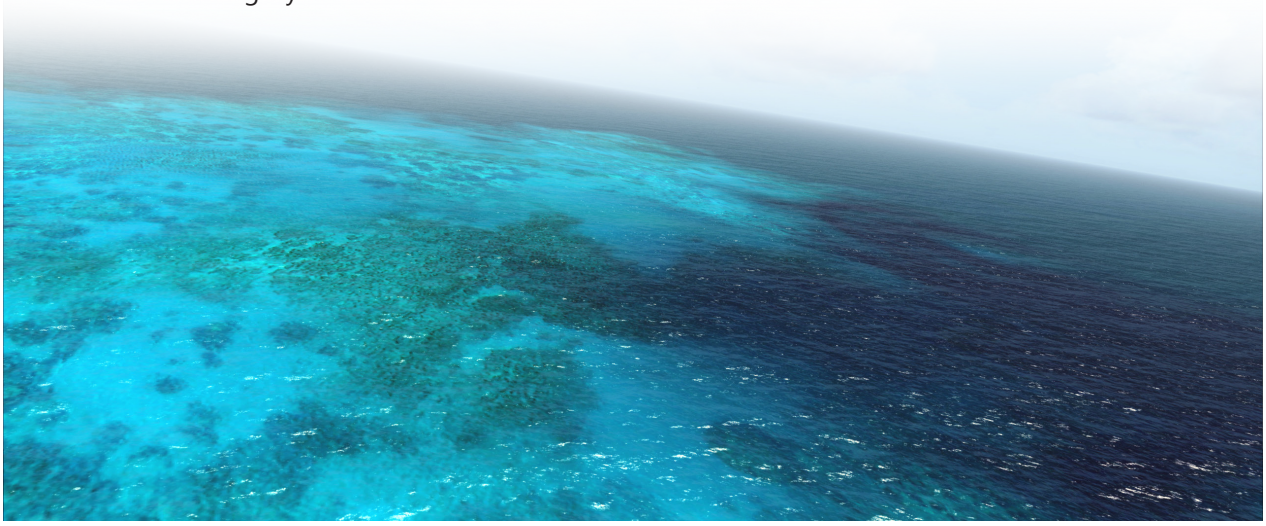
With **REX EDGE** you have the ability to share your texture themes with other REX community users.

Suppose you created that killer look and wanted to share it with others - you now have the ability to do that. Or with the simple click of a button you can install another users settings in a matter of seconds. We have added categories to themes so that you can now search for themes by creator name or theme category.

With **REX EDGE Technology** we also have included the ability to back up your application settings. For example, If you create 100 different themes, you will never lose them if you have created a backup/ restore account. It's that simple! With this new function you will be able to restore your application settings automatically if a re-install is required.

REX EDGE also allows us to bring together a repository of weather data. Every 10 minutes we are downloading and storing the latest weather information from **NOAA** and **VATSIM**.

We have implemented the storing and archiving of real upper-level wind and temperature data from world's radiosonde reports. This is extremely exciting to us in that instead of providing a forecast we are now the only one providing accurate real-time winds aloft data. We have found that this data has significantly reduced the quick changes in winds shifts aloft. Though we are still bound by the limits of FSX technology, this still brings a realism not found before in the flight sim community.



Another example of how **REX EDGE** is used within REX is after you configure the program, you'll be prompted to setup a user account, thus creating a user profile on our *"cloud"* servers. When you save your user configuration in REX, it will be saved locally on your machine and also on our *"cloud"* servers.

If for some reason you ever need to re-install Windows OR REX, all you have to do is simply login and your original settings will be reset from our servers. You will not be required to login each time you open REX, as that is done for you automatically. If no internet connection is present, you'll still be able to use REX, but you will not be able to utilize this specific feature.

Outside of **REX EDGE**, we sped up the process of installing textures. We've added the ability to reduce the install time with the click of a button. This will only install key textures such as sky, clouds, wave animations, and runways/taxiways. This process eliminates the need for decompressing large water textures and resetting to correct resolutions before install.

REX EDGE technology also opens up a huge amount of potential in other areas with future projects, thus allowing us to connect all of our technologies together.

INDUSTRIAL STRENGTH WEATHER ENGINE

We added a completely new and unique technology... "**WEATHER CUBED".** Weather Cubed looks at all areas surrounding the aircraft. We offer many of these settings within the configuration manager, but many of these features are now handled internally with the use of the weather data platform in place. Since most of the processes run outside of FSX/P3D, we're able to compute complex math processes in order to help the weather engine apply as much realism as possible.

The integration of real winds and temperatures aloft are now inherent within REX. We tap into the data sources that provides real temperatures and winds aloft for the world provided by balloon data.

REX allows you to configure winds, visibility, and clouds, but also allows you to balance the injection process of the weather. You can get better frame rates by controlling how the weather is injected over time. In other words, we allow you to adjust how each weather station is loaded over a period of time. We give you the ability to fine tune your weather injection process. The other areas you can modify with the weather engine running are: download processes, interpolating processes, injection rates, and region sizes.

INTERPOLATION PROCESS

Metar stations that report weather data today do not reflect the number of weather stations within FSX/P3D. Many of the stations in FSX/P3D do not report real weather in real life. However, we wanted to be sure all stations in FSX/P3D have weather to report. We populated the REX database with all of the weather stations from FSX/P3D, then take real weather data and bump it up against that database. Those that match, real weather data is used. Those that don't have weather, we look to the closest neighbor to get the closest possible match.

REX allows you to adjust this reading. Some weather stations don't have a very close neighbor. Using this process alone would have eliminated about 2000 stations reporting weather. This would have caused huge gaps in some areas. Within the **CONFIGURATION MANAGER** you have the ability to set the range of stations to interpolate weather data. This gives FSX and P3D a more rich and smooth flight experience.

REX Game Studios has joined with and embedded the technology of FlightAware into REX. Below is a quick, but brief overview of what FlightAware can do:

With **FlightAware** inside REX, you're able to search for real-world, real-time IFR flights scheduled at a single airport or between routes between two airports. You're provided details about the flight and then able to import the flight plan into FSX/P3D via REX.

If you decide to fly a real-time, real-world route, REX provides current flight notifications via the weather engine while in-flight. REX will give the most realistic experience possible with real-world, real-time flight plans from most major airlines across the world.

REX includes temperatures and winds aloft on the interface, within the NAV LOG, in-flight as well as updated current SIDS/STARS/Intersections/Waypoints for better representation of flight plans.

SHARE YOUR FLIGHT PLAN

Say you flown a really interesting flight plan you created through REX, a 3rd party flight planner, **FlightAware**, or even FSX/P3D and now you wish to share it with others, or save it for later.

With **REX EDGE Technology** we provide the means to share your flight plans with other REX users around the world.

We also provide a means to create a flight plan, but now when you create a flight plan either by **FlightAware**, importing a flight plan from FSX/P3D, other third-party planners, importing a community flight plan, or creating your own, you will be provided a detailed view. You can view the plan along with all of the associated waypoints including real winds aloft data for each waypoint. So programming your FMC within the latest installment of a 3rd party aircraft is much easier.

Within the **FLIGHT CENTER** we created not just the basics, but realism, as well as the community aspect.

NEW ENVIRONMENT AND WEATHER SOUNDS

REX now includes true environment and weather-related audio. Because REX Game Studios® owns and operates a recording/mastering studio, we went through great lengths to maintain a certain 'sound' through a meticulous mastering process, bringing the sound experience to our users.

The dynamic sounds of rain, wind and thunder will simply blow you away.

ADDED TEXTURE PROCESSES

Users with lower-end systems can now select a compressed algorithm for wave animation sets with minimized visual anomalies, as usually associated with this type of compression, greatly enhancing the simulator performance.

The new "REX Natural Sky" texture set adds a unique tint to your dawn, day, and dusk skies. Also, now included is the ability for you to select clouds based upon the cloud type. The new weather-influenced process has been completely re-written inside REX. You will experience conditions closer to what is actually happening in the real-world. This process will give you a wider range of variety utilizing all textures within REX.

IMPORTANT- READ ME!

BELOW ARE IMPORTANT FACTORS IN CONSIDERATION FOR INSTALLING AND OPERATING REX WITHIN FSX AND/OR PREPAR3D:

1. REX is compatible with Microsoft Flight Simulator X with SP2 or Acceleration Pack and Lockheed Martin's Prepar3D v. 1.3 and above.

2. NEVER install REX into the main FSX or P3D folder.

3. Due to the extra security measures Microsoft placed on the Program Files (x86) folder, we HIGHLY recommend installing REX outside of this folder! Not doing so may lead to issues with the operation of REX. For Windows 8 users, REX MUST be installed outside of the Program Files (x86) folder.

4. Windows 8 users MUST install REX outside of the Program Files (x86) folder.

5. If REX, FSX or Prepar3D are installed into the program files (x86) directory, UAC (User Account Control) MUST be turned OFF in Windows to allow the proper communication between the two.

6. IF FSX or Prepar3D is installed in the Program Files folder you may need to set Permissions and Sharing so that REX may write the necessary files into the simulator.

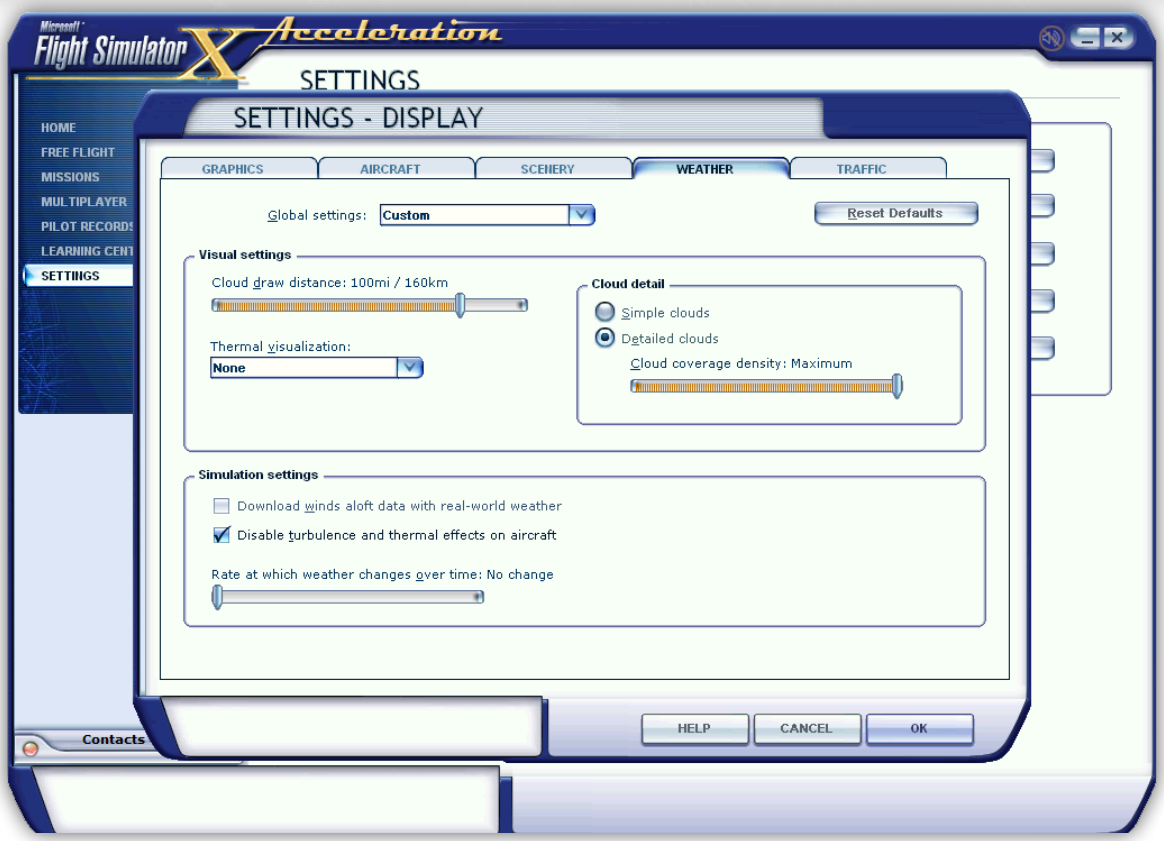
7. We recommend turning OFF all virus scanners while FSX is running.

8. The SimConnect file included with REX is available in case the version of SimConnect currently installed with FSX becomes corrupt. If you are experiencing issues with weather loading procedures, you can try re-installing using the available SimConnect.msi within the REX directory.

9. If you wish to view high-definition textures within FSX, you must make sure to set this value in the FSX.cfg file. Add **TEXTURE_MAX_LOAD=4096** within the GRAPHICS section of the FSX.cfg file. This can be located in your c:\Users\<your account name>\AppData\Roaming\Microsoft\FSX. If the AppData folder is hidden, you will need to change the VIEW settings as outlined here: Open Folder Options by clicking the Start button , clicking Control Panel, clicking Appearance and Personalization, and then clicking Folder Options. Click the View tab. Under Advanced settings, click Show hidden files and folders, and then click OK.

In this manual, buttons and tabs that can be clicked or pressed are spelled exactly as seen on screen and highlighted in bold, such as the **FLY NOW** button or the **MAIN** tab, as are references to options and choices that can be selected/unselected or checked/unchecked, such as **Enable REX Weather Engine** option. Menu names are also spelled exactly as you can see them on screen and highlighted in bold as in this example **FLIGHT CENTER**. Drive, directory, folder and file names and other computer locations and commands will be shown in italics and bolded, such as ***C:\REX Essential Plus***

RECOMMENDED FSX SETTINGS



The most critical settings within FSX in regards to REX interaction is the SETTINGS / DISPLAY / WEATHER screen.

Please change FSX settings to what is shown above.

VISUAL SETTINGS

Cloud draw distance instructs FSX how far to draw clouds. If the setting is set to full-right (110mi), the cirrus clouds will appear cut-off in the distance. Backing this off to 100mi will rectify this issue, still giving a great distance to view clouds.

Thermal visualization allows you to view thermals while in-flight.

SIMULATION SETTINGS

Download winds aloft data with real-world weather - In order to prevent the inherent wind issues prevalent within FSX, make sure this option is NOT selected.

Disable turbulence and thermal effects on aircraft - This option must be turned ON in order to prevent the inherent wind issues prevalent within FSX.

Rate at which weather changes over time - In order to take full potential of the REX weather engine, this option should always be set to NO CHANGE.

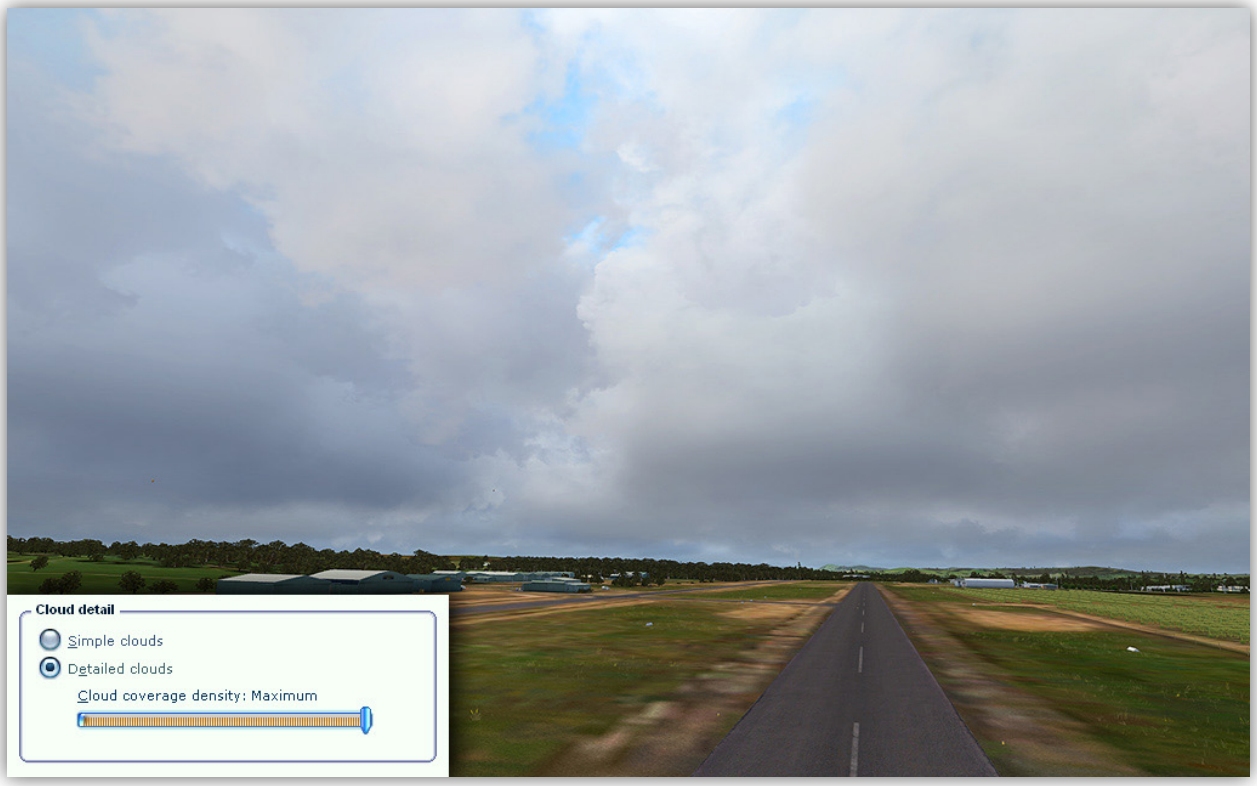
CLOUD DETAIL

This area is the single most important area in regards to cloud visuals. If **Simple clouds** is checked, FSX will NOT utilize REX textures. Select **Detailed clouds** for full functionality of REX cloud textures.

The **Cloud coverage density** slider presents an important roll in terms of weather depiction as well as visuals. The following two pages display a visual demonstration what each setting represents. Each screenshot represents the same exact weather, the only difference is the **Cloud coverage densit**y slider setting.

RECOMMENDED FSX SETTINGS

Cloud detail
Simple clouds
Detailed clouds
Cloud coverage density: High


Cloud detail
Simple clouds
Detailed clouds
Cloud coverage density: Maximum

The most critical settings within Prepar3D in regards to REX interaction is the SETTINGS/ DISPLAY/WEATHER screen.

Please change Prepar3D settings to what is shown above.

VISUAL SETTINGS

The **Cloud draw distance** setting instructs Prepar3D how far to draw clouds. If the setting is set to full-right (110mi), cirrus clouds will appear cut-off in the distance. Backing this off to 100mi will rectify this issue while still giving a great distance to view clouds.

Thermal visualization allows you to view thermals while in-flight.

CLOUD DETAIL

This area is the single most important area in regards to cloud visuals. If **Simple clouds** is checked, Prepar3D will NOT utilize REX textures. Select **Detailed clouds** for full functionality of REX cloud textures.

Many folks aren't aware of this, however, the **Cloud coverage density** slider presents an important roll in terms of weather depiction and visuals. Please view the previous two pages in regards to this setting as it functions the same within FSX.

REX GAME STUDIOS
BUILD 3.3.2013.0604
BUILDING WINDOWS AND THEMES
REX essential+ HD
High-Definition Environmental & Weather Package
Engineering Simulation Technology™
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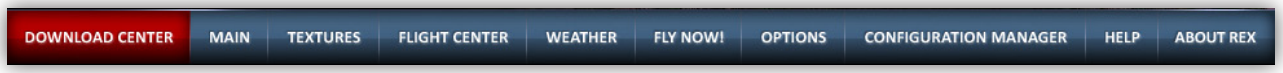
Upon opening REX you'll be presented with the opening screen as seen above. The installed version number is located on the upper-right hand portion of the screen, while the program loading process is updated via the green status bar.

Immediately following start-up, the **CONFIGURATION MANAGER** is displayed. The **CONFIGURATION MANAGER** is separated into five core areas; **General**, **Weather Engine**, **Visibility**, **Wind** and **Cloud** settings. The following pages will describe each section in detail.

Notice upon start-up that the **WEATHER DOWNLOAD PROCESS** immediately initiates. During this process REX is downloading the latest or archived METAR, TAF, PIREPS, and upper air data from our proprietary REX EDGE servers. Following the data download, it is parsed for later use within the various sections of the application and ultimately within the REX weather engine modes.

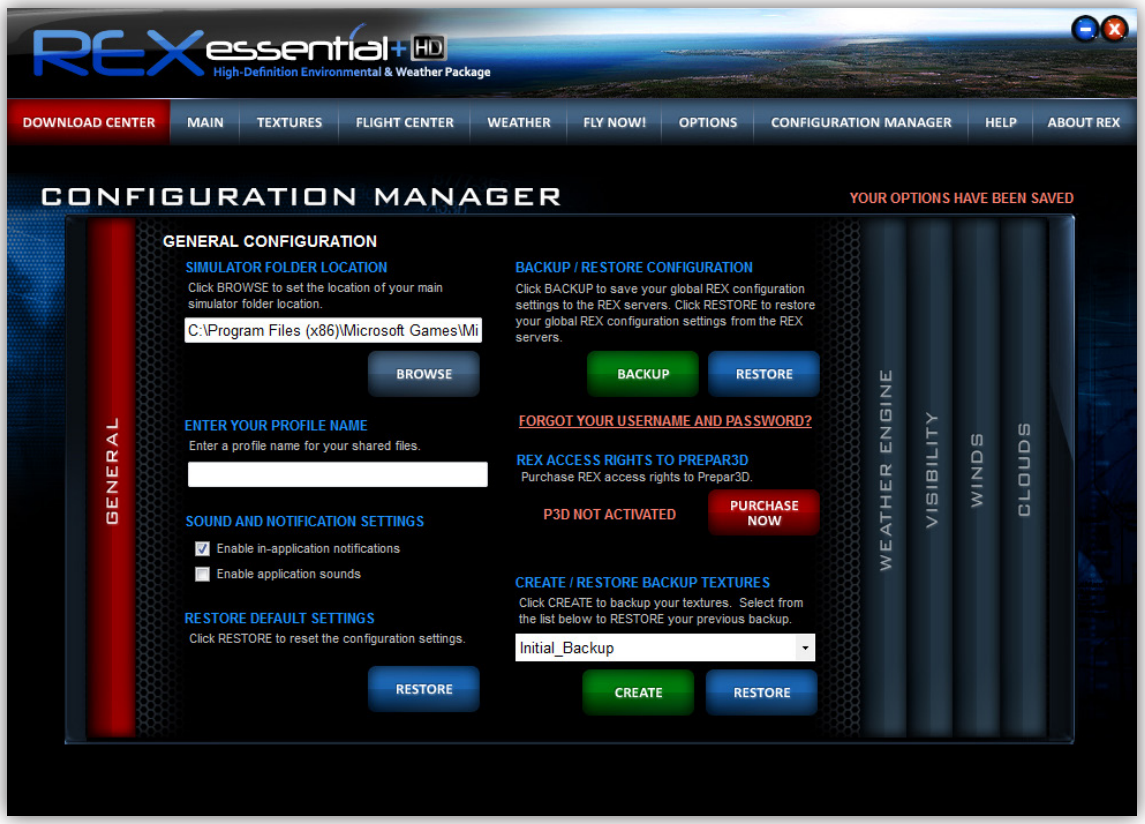
If you're using REX as a texture add-on ONLY, and don't wish to wait for load times upon startup, un-check **Enable Weather Data Download** from within the **CONFIGURATION MANAGER** - This feature turns ON or OFF the ability for REX to download weather from its weather sources.



You navigate the program via the **MAIN NAVIGATION BAR**. Choices presented are as follows:

The **DOWNLOAD CENTER** is a new area in which REX Game Studios® can pass along new & updated material developed for FSX or P3D to our customers. The **TEXTURES** area allows you to choose and create textures to be installed into FSX/P3D. The **FLIGHT CENTER** is where you may create or import flight plans as well as use real-world flight plans via FlightAware. The **WEATHER** button takes you to the custom weather/real-time weather center. **FLY NOW** starts the REX weather engine and FSX/P3D. **OPTIONS** is where you tailor the configuration of texture installation as well as optimize texture content. The **CONFIGURATION MANAGER** is a main hub for setting up all facets of REX. **HELP** opens the help manual. **ABOUT REX** navigates you to the section containing crucial program information.

GENERAL CONFIGURATION



SIMULATOR FOLDER LOCATION

Click **BROWSE** and navigate to the main simulator installation folder. In the example above on a Windows 7(32-bit) system, the location is as follows: ***C:\Program Files (x86)\Microsoft Games\Microsoft Flight Simulator X***

ENTER YOUR PROFILE NAME

This area allows you to attach a profile name to the various community shared features within REX.

SOUND AND NOTIFICATION SETTINGS

Enable in-application notifications - Allows you to enable/disable all in-application notifications such as community flight-plan and texture sharing, etc. All notifications appear on the bottom of the REX application interface, and is also known as the **INFORMATION CENTER.**

Enable application sounds - Allows you to enable/disable the program sound effects.

RESTORE DEFAULT SETTINGS

Restores all of your REX settings program-wide to factory default.

BACKUP/RESTORE CONFIGURATION

Allows the backup and restoration of all REX configuration, options and texture theme settings via the REX Data Servers. A very useful feature that allows you to fully recover all of your REX settings in case you need to perform a reinstall of the REX. This feature takes a 'snapshot' of your settings and stores them for future use. ***Continued on next page.***

IMPORTANT NOTE

It is extremely important that you do not create more than one account or you may lose functionality.

GENERAL CONFIGURATION *(continued)*

BACKUP/RESTORE CONFIGURATION

Upon clicking the **BACKUP** button, the information form appears, as seen above. If a profile name has already been entered prior to entering this section, the USERNAME is automatically populated.

Be careful, only ONE backup may be created.

To create an account, fill in the appropriate information; E-mail Address, Confirm E-mail, Username, Password and Confirm Password. Select **CREATE**. **WRITE THIS INFORMATION DOWN AND KEEP IN A SAFE PLACE FOR FUTURE USE.**

To restore your user settings, fill in your Username and Password and select **RESTORE**. Select **CANCEL** to cancel the process and return to the main **CONFIGURATION MANAGER**.

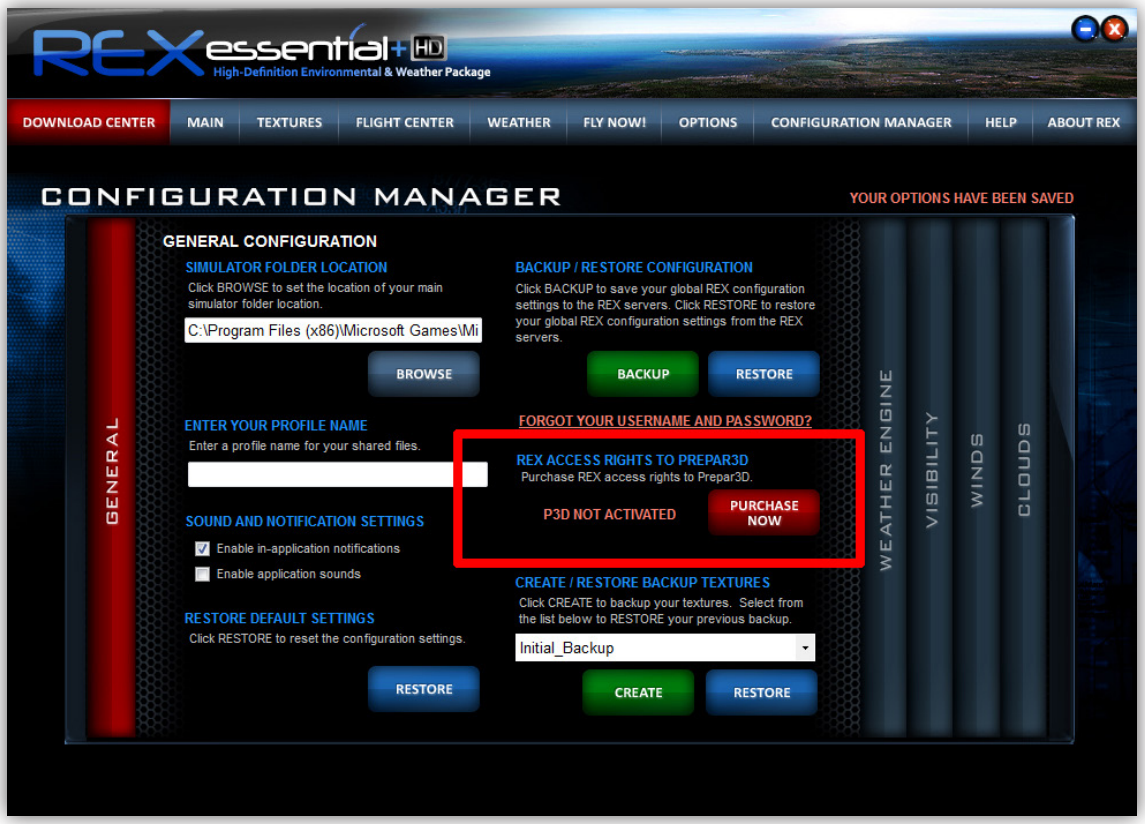
FORGOT YOUR USERNAME AND PASSWORD?

If you misplaced or forgotten your previously saved account information, click the red "FORGOT YOUR USERNAME AND PASSWORD" link. You will be directed to the web, specifically a page setup for retrieving account information. You will be required to enter your email address used during the initial sign-up process.

IMPORTANT NOTE

The DOWNLOAD CENTER cannot be used if you haven't CREATED a BACKUP profile. The DOWNLOAD CENTER will appear empty until this is completed!

GENERAL CONFIGURATION *(continued)*



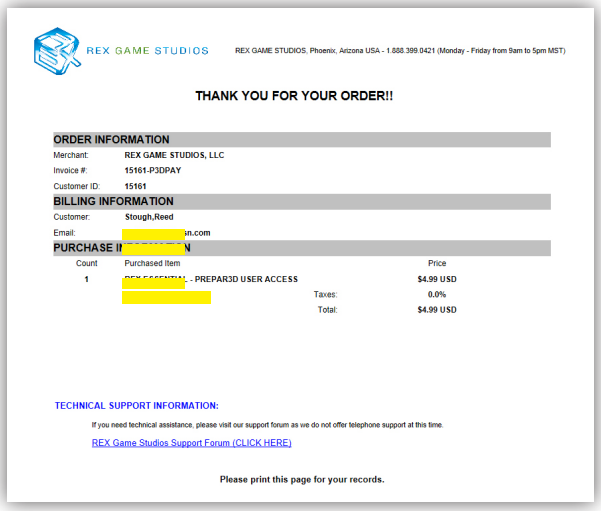
REX ACCESS RIGHTS TO PREPAR3D

REX was heavily developed to work with Prepar3D, hence the small charge to use REX within P3D. Purchasing a REX/P3D license will 'unlock' all the features specific to the P3D platform.

To purchase a license and access the features specific to P3D, select the **PURCHASE NOW** button. You will be presented with a purchase screen. Fill out the necessary information and submit. Once submitted and approved, you will immediately be given a receipt confirming purchase, as seen on the right. If approval has been denied, you will immediately be notified. Following approval, a user account is created on the REX data servers and will be used to backup your configuration and access status.

Following approval, the words "**P3D ACTIVATED**" will be viewed within this area and the **PURCHASE NOW** button will be removed. You will not be asked again to purchase the REX P3D license upon reinstallation of REX. This is a one-time only fee.

To initiate the license upon reinstallation of REX, simply select the **RESTORE** button within the **BACKUP/RESTORE CONFIGURATION** area and follow the directions.



REX GAME STUDIOS

REX GAME STUDIOS, Phoenix, Arizona USA - 1.888.399.0421 (Monday - Friday from 9am to 5pm MST)

THANK YOU FOR YOUR ORDER!!

ORDER INFORMATION

Merchant: REX GAME STUDIOS, LLC
Invoice #: 15161-P3DPAY
Customer ID: 15161

BILLING INFORMATION

Customer: Stough,Reed
Email: [redacted]

PURCHASE I[redacted]N

Count	Purchased Item	Price
1	[redacted] - PREPAR3D USER ACCESS	$4.99 USD
	Taxes:	0.0%
	Total:	$4.99 USD

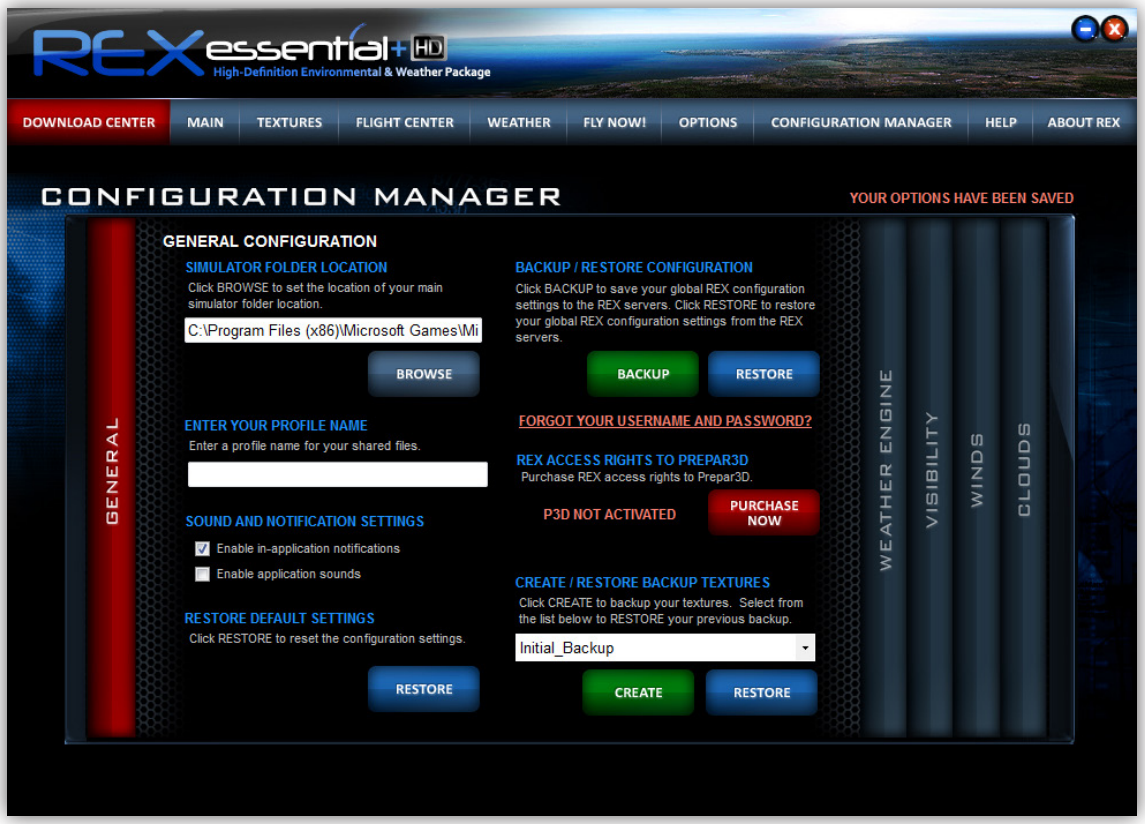
TECHNICAL SUPPORT INFORMATION:

If you need technical assistance, please visit our support forum as we do not offer telephone support at this time.

REX Game Studios Support Forum (CLICK HERE)

Please print this page for your records.

GENERAL CONFIGURATION *(continued)*



CREATE/RESTORE BACKUP TEXTURES

CREATE will backup all FSX/P3D textures. When backup process is final, a folder with the name "**Initial_Backup**" is displayed in the backup window. **RESTORE** restores the files to what they were before REX was installed. REX saves a backup copy of all textures and other files that are modified by REX.

REX backs up textures that are installed within your sim *now*. If no other texture add-ons have been installed, then the backup will consist of FSX default files. If you installed a similar add-on similar to REX, the backup will contain these files and NOT FSX default files. If default FSX textures are desired in the backup, other add-ons must be restored or uninstalled before running the REX backup.

IMPORTANT NOTE ON UNINSTALLING:

If the need arises to uninstall REX, be sure to first restore your FSX/P3D default textures by navigating to the **CONFIGURATION MANAGER** page and clicking the **RESTORE** button within the **CREATE/RESTORE BACKUP TEXTURES** area. After the restore completes, quit REX and go to the ***Windows Control Panel\Add or Remove Programs*** and remove REX. This will uninstall REX from your system. After this process completes, browse to the location where you installed REX and delete any remaining folders. Running a registry cleaner is HIGHLY advised to remove any residual registry entries. We suggest a free program, cCleaner, available at www.piriform.com/ccleaner

WEATHER ENGINE CONFIGURATION - WXPLUS VS. STANDARD MODES

WHAT IS WXPLUS MODE?

The **WXPLUS** mode of the REX weather engine can be compared to using a weather theme within FSX/P3D. The weather is handled more globally.

WHAT IS STANDARD MODE?

The **STANDARD** mode of the REX weather engine is focused on loading weather reported with each individual airport or weather stations within FSX/P3D.

WHAT ARE THE BENEFITS OF USING THIS MODE?

1. Weather is loaded instantaneous (unless the 3D smoothing option has been enabled)

2. No sky flashing when loading occurs.

3. Very little FPS hit when loading weather.

4. Weather can appear fuller and contain more depth vertically.

5.) Weather transitions can be controlled better.

WHAT ARE SOME ADDITIONAL FEATURES OF WXPLUS MODE?

1. Enabling 3D smoothing Interpolation allows the WXPLUS mode to create more in-depth weather in where fronts and systems are more visible in the distance. Produces something similar to the STANDARD MODE, but lacks the accuracy.

2. Enabling Synoptic Interpolation allows the creation of custom weather stations to fill in gaps where weather stations are missing, such as deserts or oceans.

HOW IS IT DIFFERENT FROM STANDARD MODE?

WXPLUS mode loads weather based upon the airport or reporting station closest to the user's aircraft. Thus, the weather is loaded more globally.

WHAT ARE SOME FSX LIMITATIONS USING THIS MODE?

1. The FSX does not provide a means to allow for smooth transitions between weather loads. Though we have added internal code functions to compensate for this, there are still limits. Areas affected by this would be cloud changes, wind shifts, and visibility changes.

2. The loss of accuracy over time if you enable smoothing features.

WHAT ARE THE BENEFITS OF USING THIS MODE?

1. Weather appears fuller and contains more depth horizontally.

2. More accuracy at each weather station.

3. The effect of approaching weather systems

WHAT ARE SOME ADDITIONAL FEATURES OF STANDARD MODE?

1. Enabling 3D Smoothing Interpolation allows the STANDARD mode to not change the weather directly at the aircraft during flight. This reduces the rapid changes in clouds, winds, and visibility.

2. Enabling Synoptic Interpolation allows the creation of custom weather stations at a distance to fill in large gaps between weather stations such as deserts or oceans.

3. Enabling Micro Interpolation allows the creating of custom weather stations near the aircraft that can aid in handling better weather transitions near the aircraft.

HOW IS IT DIFFERENT FROM WXPLUS MODE?

STANDARD MODE loads the weather reported by each station and not globally near the aircraft.

WHAT ARE SOME FSX LIMITATIONS USING THIS MODE?

1. Can affect FPS, due to that fact that Simconnect must be accessed via code over a longer length of time.

2. Slight flicker of upper levels of sky due to Simconnect.

3. Simconnect has been known to re-interpret weather when injection occurs, thus causing unwanted results at times.

4. Loading times of weather will take longer if you set a wider Weather Region within the Configuration Manager of REX.

5. FSX does not provide a means to allow for smooth transitions between weather loads. We've added internal code functions to compensate for this, however, there are still limits. *(The only smooth transition this mode allows is with clouds, but the loss of accuracy is too great to utilize this function)*

WEATHER ENGINE CONFIGURATION

REX essential+ HD
High-Definition Environmental & Weather Package
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
CONFIGURATION MANAGER
YOUR OPTIONS HAVE BEEN SAVED
GENERAL
WEATHER ENGINE
WEATHER ENGINE CONFIGURATION
INITIAL WEATHER DELAY TIMER
Use this slider to set the time in which you want to delay the weather engine from injecting weather at start up.
Time: 1 Minutes
WEATHER SURFACE REGION
Use this slider to set the weather surface region your aircraft will fly before the weather will inject again.
Small Region
WEATHER REFRESH RATE
Use this slider to set the time interval in which you want the weather engine to inject weather into the simulator.
Every: 15 Minutes
WEATHER INJECTION ALTITUDE SETTINGS
Enable minimum weather injection altitude
0
Altitude (FT)
WEATHER ENGINE MODE
WX PLUS MODE
STANDARD MODE
GENERAL WEATHER ENGINE SETTINGS
Enable REX weather engine
Enable auto-start the REX weather engine
Enable auto launch the flight simulator
Enable VATSIM weather data
Enable green message bar within the simulator
Enable weather download every 15 mins.
Enable weather data download
WEATHER INTERPOLATION SETTINGS
Enable weather 3D smoothing
Enable synoptic weather interpolation
Enable micro weather interpolation
Enable FSX/P3D weather interpolation
Avg. Accurate / Avg. Stations
VISIBILITY
WINDS
CLOUDS

INITIAL WEATHER DELAY TIMER
Sets the initiation time in which REX begins to inject weather into FSX/P3D. Select a starting time between 1 and 5 minutes. A shorter wait time allows the REX weather engine to inject weather while you're still configuring a FSX/P3D flight.

WEATHER SURFACE REGION - Selects the size of the weather region travelled before weather refreshes. Ranges from 4,225 sq. miles up to covering the entire globe. If you travel outside the weather region, REX refreshes the weather region and resets the timer, or if passing the time setting for refresh, REX will reset your region size.

This feature is not functional in WX PLUS mode.

WEATHER REFRESH RATE
Causes the REX weather engine to refresh weather based on time. If flying outside of the weather region, the timer is reset. This works for WXPLUS mode, but the update times are different than in STANDARD mode. If you don't fly out of the weather region but the timer resets, then the region area is also reset.

WEATHER INJECTION ALTITUDE SETTINGS
Sets the minimum altitude in feet in which the weather engine will engage and inject weather into FSX/P3D. The weather engine will perform an initial weather load, however, consecutive injections will be based upon the altitude of your aircraft and the minimum injection altitude. During descent, the weather will not inject after the aircraft descends below the minimum altitude.

You may force a weather injection by selecting the LOAD WEATHER menu item on the REX Weather Engine (WASys).

WEATHER ENGINE CONFIGURATION *(continued)*

REX essential+ HD
High-Definition Environmental & Weather Package
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
CONFIGURATION MANAGER
YOUR OPTIONS HAVE BEEN SAVED
GENERAL
WEATHER ENGINE
WEATHER ENGINE CONFIGURATION
INITIAL WEATHER DELAY TIMER
Use this slider to set the time in which you want to delay the weather engine from injecting weather at start up.
Time: 1 Minutes
WEATHER SURFACE REGION
Use this slider to set the weather surface region your aircraft will fly before the weather will inject again.
Small Region
WEATHER REFRESH RATE
Use this slider to set the time interval in which you want the weather engine to inject weather into the simulator.
Every: 15 Minutes
WEATHER INJECTION ALTITUDE SETTINGS
Enable minimum weather injection altitude
0
Altitude (FT)
WEATHER ENGINE MODE
WX PLUS MODE
STANDARD MODE
GENERAL WEATHER ENGINE SETTINGS
Enable REX weather engine
Enable auto-start the REX weather engine
Enable auto launch the flight simulator
Enable VATSIM weather data
Enable green message bar within the simulator
Enable weather download every 15 mins.
Enable weather data download
WEATHER INTERPOLATION SETTINGS
Enable weather 3D smoothing
Enable synoptic weather interpolation
Enable micro weather interpolation
Enable FSX/P3D weather interpolation
Avg. Accurate / Avg. Stations
VISIBILITY
WINDS
CLOUDS

GENERAL WEATHER ENGINE SETTINGS

Enable REX Weather Engine - Allows the REX weather engine to be used for weather related tasks. If you wish to use another weather engine, simply uncheck this box.

Enable Auto-Start the REX Weather Engine - Enabling this option will cause REX to start the weather engine when REX starts FSX/P3D.

Enable Auto Launch the Flight Simulator - Allows REX to autostart FSX/P3D from within the REX GUI.

Uncheck this option if using REX in a network situation.

Enable VATSIM Weather data - The default weather source for REX is NOAA, however, we also provide the VATSIM weather data that comes directly from the VATSIM weather servers.

Enable Green Message Bar Within FSX - Turns ON or OFF the green info bar within FSX. Be aware that this information bar also advises the status of weather injection, so if you notice the weather not injecting, be certain to check this feature is set to ON.

Enable Weather Download Every 30 Mins - Enables download of weather from our weather sources every 30 minutes to ensure you receive the latest updated METARS.

Enable Weather Data Download - This feature turns ON or OFF the ability for REX to download weather from its weather sources.

This is a great option to use if simply using REX for textures as there is no wait time on start-up.

WEATHER ENGINE CONFIGURATION *(continued)*

REX essential+ HD
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DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
CONFIGURATION MANAGER
YOUR OPTIONS HAVE BEEN SAVED
GENERAL
WEATHER ENGINE
WEATHER ENGINE CONFIGURATION
INITIAL WEATHER DELAY TIMER
Use this slider to set the time in which you want to delay the weather engine from injecting weather at start up.
Time: 1 Minutes
WEATHER SURFACE REGION
Use this slider to set the weather surface region your aircraft will fly before the weather will inject again.
Small Region
WEATHER REFRESH RATE
Use this slider to set the time interval in which you want the weather engine to inject weather into the simulator.
Every: 15 Minutes
WEATHER INJECTION ALTITUDE SETTINGS
Enable minimum weather injection altitude
0
Altitude (FT)
WEATHER ENGINE MODE
WX PLUS MODE
STANDARD MODE
GENERAL WEATHER ENGINE SETTINGS
Enable REX weather engine
Enable auto-start the REX weather engine
Enable auto launch the flight simulator
Enable VATSIM weather data
Enable green message bar within the simulator
Enable weather download every 15 mins.
Enable weather data download
WEATHER INTERPOLATION SETTINGS
Enable weather 3D smoothing
Enable synoptic weather interpolation
Enable micro weather interpolation
Enable FSX/P3D weather interpolation
Avg. Accurate / Avg. Stations
VISIBILITY
WINDS
CLOUDS

WEATHER INTERPOLATION SETTINGS

Weather interpolation is the process of interpolating weather from weather feeds, allowing REX to fill in gaps where weather is missing in FSX/P3D. For more accuracy, this slider should be moved towards the left. However, few stations will actually receive interpolation. Moving the slider to the right will increase the number of stations for weather, but the weather will be less accurate.

Enable Weather 3D Smoothing - Injects weather ahead of the aircraft while in flight, after initial weather injection. Removes sudden jerkiness or changes during normal weather injection.

Enable Synoptic Weather Interpolation - Creates custom weather stations over a distance, filling in gaps in weather where it might be missing during flight. Extremely useful when flying in desert areas or over oceans.

Enable Micro Weather Interpolation - Creates custom weather stations near the aircraft and utilizes better smoothing techniques so sudden changes are not rapid during takeoff, flight and landing.

ONLY available in STANDARD MODE.

Enable FSX/P3D Weather Interpolation - Causes REX to download all the weather for every weather station within FSX/P3D from its servers to later be injected during weather engine operations. NOAA and VATSIM supply weather for approximately 50% of weather stations within FSX. This feature ensures all weather stations receive weather.

ONLY available in STANDARD MODE.

VISIBILITY CONFIGURATION

REAL WEATHER VISIBILITY SETTINGS

Enable Real Visibility - Utilizes actual visibility setting provided by the metar report. Turning off this feature causes REX to use a default setting of 20NM or to use the settings provided in the GLOBAL VISIBILITY LAYERS.

Enable Real Visibility Smoothing - Helps create more smoothness to the visibility across regions. Because of the limitations of the FSX visibility plane, we're still able to produce a smooth transition vertically AND horizontally. However, this will also cause metar reports to not accurately report the visibility for each station.

FOG GENERATION SETTINGS

Enable Real Weather Fog - When turned on, REX utilizes special processes to create a more realistic fog representation vertically and horizontally based upon the metar report.

Enable Stratus Clouds As Fog - To add more depth to fog within FSX/P3D, we have coded an option for you to allow the REX weather engine to utilize stratus clouds. This gives you a feeling of transition as you fly out of a fog deck.

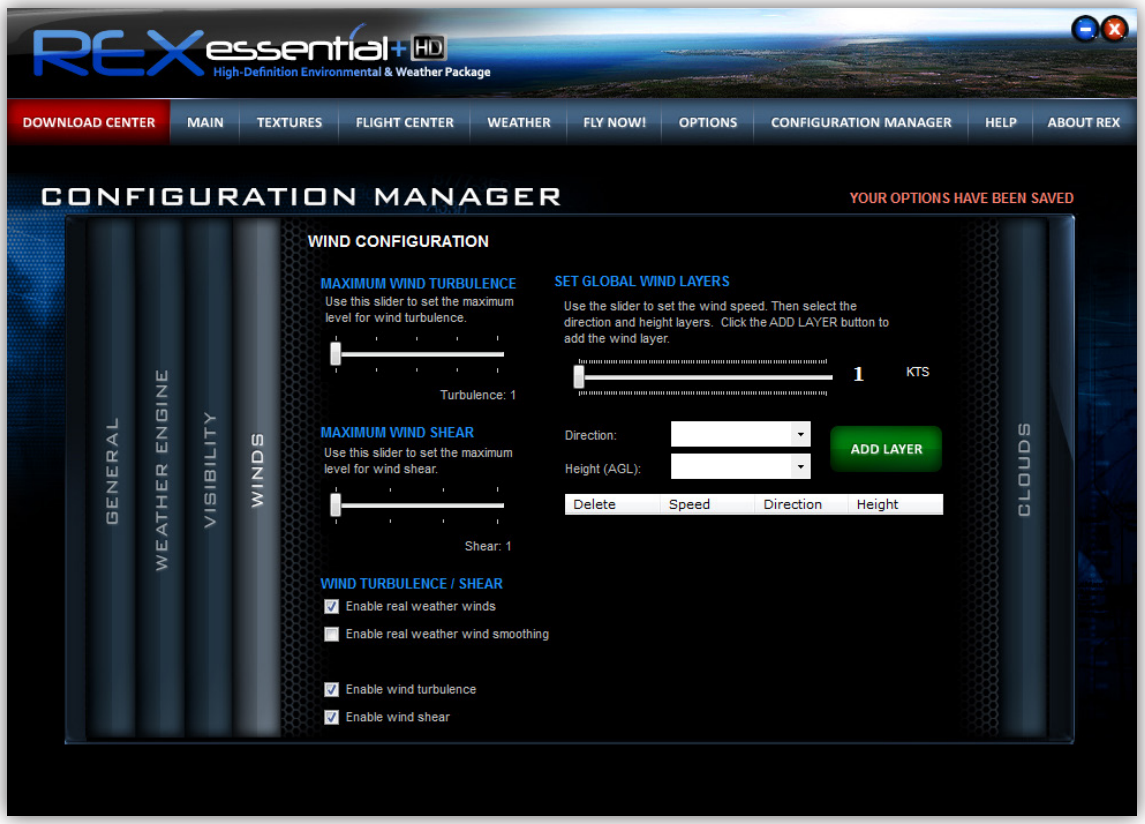
VISIBILITY CONFIGURATION *(continued)*

SET GLOBAL VISIBILITY LAYERS

Custom set your own visibility layers that override real visibility settings. You may set a range and then select the layer height by foot above ground level. The slider has the following values, by using the mouse to grab the slider and moving it left to right: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50 and 60 sm. This will take some experimenting and will yield a satisfactory solution to the haze problem.

We realize this is not an optimum solution for everyone, however, FSX does not allow many other choices in this regard. Using this feature will supersede real weather visibility.

WIND CONFIGURATION



MAXIMUM WIND TURBULENCE

Sets the maximum severity of the winds at the surface and aloft. This level ranges from one (1) to five (5). 1 referencing the lowest and 5 representing the most extreme conditions.

MAXIMUM WIND SHEAR

Sets the maximum effect of wind shear at the surface and aloft. This level ranges from one (1) to four (4). 1 referencing the lowest and 4 representing the most extreme conditions.

WIND TURBULENCE/SHEAR

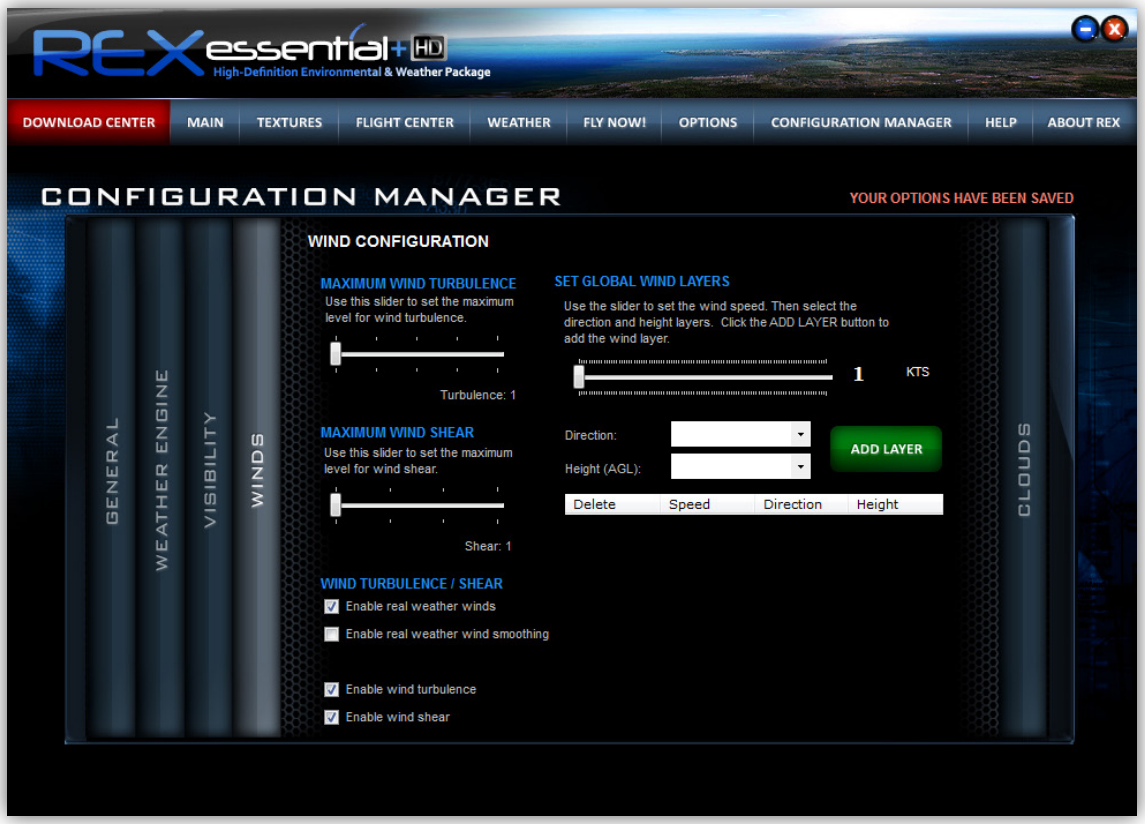
Enable Real Weather Winds - Turns ON or OFF the real weather wind provided by NOAA/VATSIM/RADIOSONDE reports. If turned OFF, you may use the GLOBAL WIND LAYER function to set your own wind levels.

Enable Real Weather Wind Smoothing - Defaults winds from current location of aircraft at all levels and forces weather stations surrounding the aircraft with the same wind variables. This utilizes multiple levels of winds read from the radiosonde reports. When weather updates occur, they occur on the fringes of the weather region so radical changes don't happen at the aircraft. When the weather updates, REX reads the original wind settings and compares them to the new ones from the region, then modifies them slowly.

Enable Wind Turbulence - Turns ON or OFF the effects of wind turbulence within REX.

If you experience drastic wind shifts in FSX, try reducing MAXIMUM WIND TURBULENCE AND WIND SHEAR to 1.

WIND CONFIGURATION *(continued)*



Enable Wind Shear - Enables you to have that scary experience of flying in thunderstorms and other severe weather.

This may increase wind shifts and other wind anomalies to an unacceptable and/or unrealistic level. If this happens, disable this feature to give more smooth realistic transition experience between clear, cloudy, and storm conditions.

SET GLOBAL WIND LAYERS

Allows customization of global wind layers, speeds and direction. This module overwrites default weather if the "Enabled Real Weather Winds" is unchecked. This defaults the FSX/P3D winds to the layers created within this module. You may set maximum wind speed in KTS., direction and wind layer height. This overrides ALL other wind settings.

CLOUD CONFIGURATION

MAXIMUM TURBULENCE

Defines maximum level that clouds exert turbulence. Ranges from minimum level one (1) to maximum five (5). 5 will definitely shake and bake your passengers!

This doesn't mean each cloud will experience level 5 turbulence, it simply means that you may experience up to level 5 turbulence.

MAXIMUM CLOUD ICING

Sets maximum level in which icing will be experienced when flying through clouds. Minimum level one (1) means very little to maximum level five (5). This doesn't mean you will experience level 5 icing in each cloud scenario, but it is the maximum allowed level.

CLOUD RATIOS

Determines the ratio of clouds used at mid/low levels. If cumulus is selected, the majority of the lower level clouds will be of cumulus form. If middle is selected, a mixture of cumulus and stratus is used. If stratus is selected, the majority of clouds will be of stratus form.

CLOUD/STORM ENHANCEMENTS

Enable Enhanced Thunderstorms - Causes FSX/P3D to use maximum level of severity enhancing representation of thunderstorms.

Enable Enhanced Lightning - Creates a more realistic view of lightning, giving more depth to the way thunderstorms are represented.

Enable Storm Scud - Applies an added feeling of meanness to the thunderstorm.

You will experience more intimidating cloud structures with this setting enabled.

CLOUD CONFIGURATION *(continued)*

CLOUD/TURB/SHEAR/ICING

Enable Cloud Icing - Turns ON or OFF cloud icing. Select this option to provide more realistic icing effects while in-flight.

Enable Cloud Turbulence - Turns ON or OFF cloud turbulence.

GLOBAL CLOUD LAYERS

Enable Global Cirrus Cloud Deck - When enabled, a global layer of cirrus type clouds will appear.

Enable Global Cumulus Cloud Deck - When enabled, a global layer of cumulus type clouds will appear.

Enable Realistic Haze Layer - In IFR conditions, this will help immersion.

This setting will create hard edges when fog intersects with terrain, and causes a 'cloud-type' formation to follow the aircraft.

CUMULUS DEFINITION

Changes structure representation of cumulus cloud definition from fluffy to flat.

STRATUS DEFINITION

Changes structure representation of stratus cloud definition from chaotic to stable.

CUMULONIMBUS DEFINITION

Changes structure representation of cumulonimbus cloud from anvil to towering structure.

OPTIONS MANAGER

The **OPTION MANAGER** controls which textures are installed into FSX/P3D. The **OPTIMIZATION** area controls the resolution and algorithm of textures installed, and an overall system performance section which allows REX to decide which settings are best suitable depending on the capabilities of your computer system.

The **DE-SELECT** button allows you to easily and quickly deselect/select all settings on this menu.

This section controls which textures are installed into FSX/P3D. Any changes made to this menu will not take affect until the textures are loaded into flight simulator via the TEXTURES area.

Textures cannot be installed into FSX/P3D while the flight simulator is running!

Many users make the mistake of trying to install textures while flight simulator is running. The result is a program crash! If a crash is encountered, or some other unexplained behavior while initiating this process, quickly check to see if flight simulator is running.

IMPORTANT NOTE

Use of the 4096 or 2048 textures will cause serious performance issues for most lower end systems. **Use of the higher resolution textures will result in lower frame rates and performance whereas use of the lower resolution textures will result in lower quality.** If performance issues are experienced, try using the lower resolution textures. These lower resolution textures are still exceptional and many people find that they desire and use these textures even though they have higher end systems.

OPTIONS MANAGER

Once textures have been loaded into FSX/P3D, un-selecting a box does *NOT* cause them to be uninstalled. It means you can load the textures into flight simulator and then uncheck that box and REX won't install them again in the future.

As described below for water textures, this can save a LOT of time.

Installing textures takes between 4 and 12 minutes IF all boxes are checked. The time can be significantly reduced *(down to 1 minute)* by de-selecting all the water texture boxes.

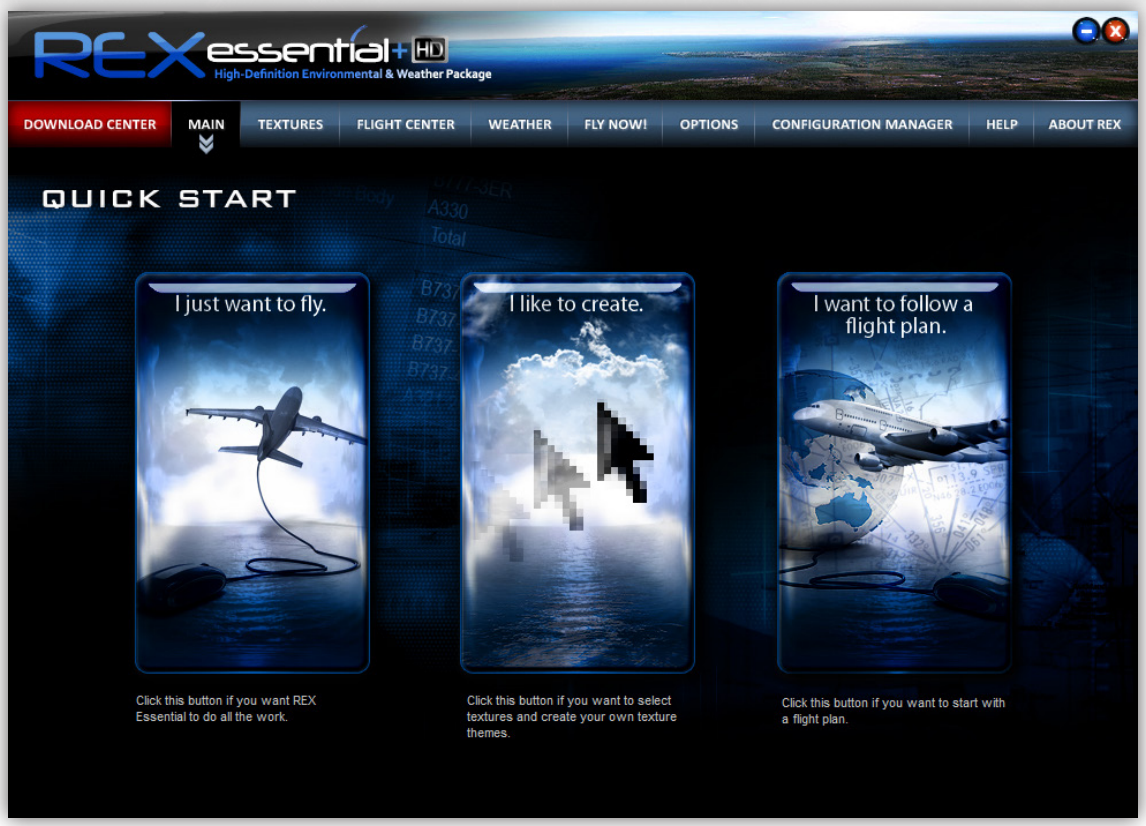
If you would like to experiment with a variety of textures and don't want to wait the load times, we recommend you install water textures ONCE then de-select ALL water texture boxes.

Performance Settings Drop-Down Menu - Contains four system performance levels you may choose from. The bottom three are self explanatory. Choose one of these three and watch how the settings in the other areas of this page change. If you would like your own custom settings, choose **CUSTOM**.

IMPORTANT NOTE

We HIGHLY recommend the use of DXT5 Optimized Clouds. DXT5 is the most flexible general purpose compression codec, so if problems are experienced using REX clouds at higher resolution, select the DXT5 Optimized Clouds setting. The same goes for the Wave Animation setting. 32-bit is much more demanding on the GPU, thus if problems arise with the use of the 32-bit setting, select the DXT-1 option, and be sure to install the textures into flight simulator for the changes to take affect.

QUICK START MENU


REX essential+ HD
High-Definition Environmental & Weather Package
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
QUICK START
I just want to fly.
I like to create.
I want to follow a flight plan.
Click this button if you want REX Essential to do all the work.
Click this button if you want to select textures and create your own texture themes.
Click this button if you want to start with a flight plan.

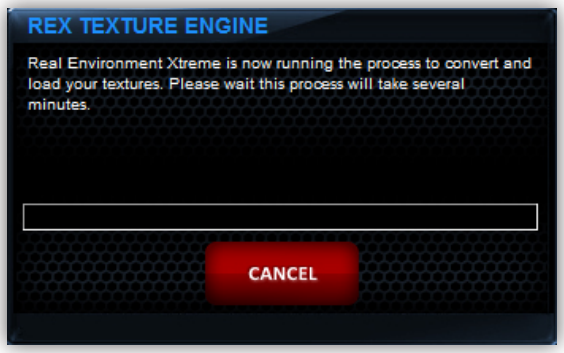
The **QUICK START** section contains three large buttons which allow you to quickly perform certain actions.

WANT TO FLY
Allows REX to randomly select and install textures into FSX/P3D, then opens both the flight simulator and the REX Weather Engine.

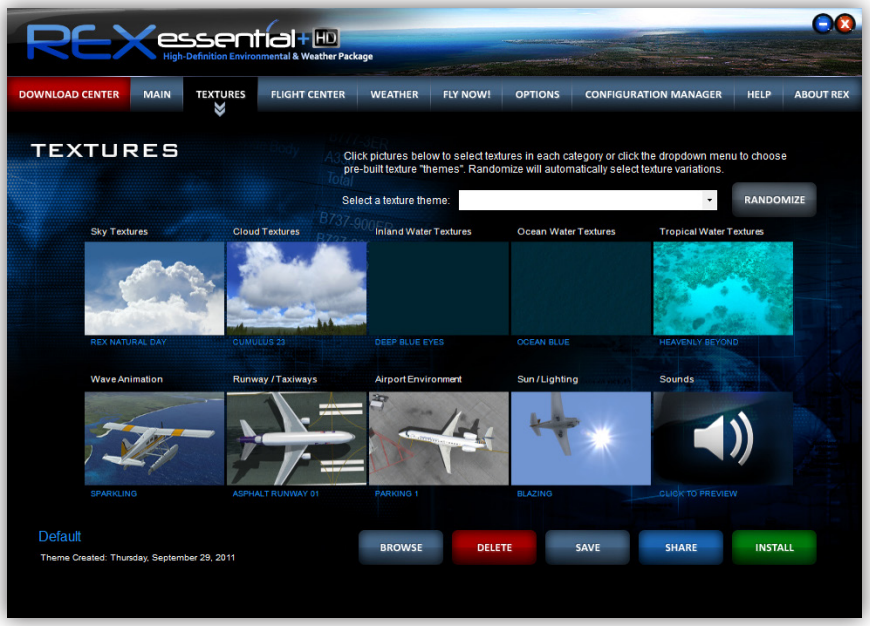
LIKE TO CREATE
Allows you to create texture themes, select and install textures/sounds or share/ browse textures with the rest of the REX community.

FOLLOW A FLIGHT PLAN
Allows creation of flight plans *(with real-time, random or archived weather)*, interface with **FlightAware real-world live flight plans**, or save/browse community-shared flight plans.

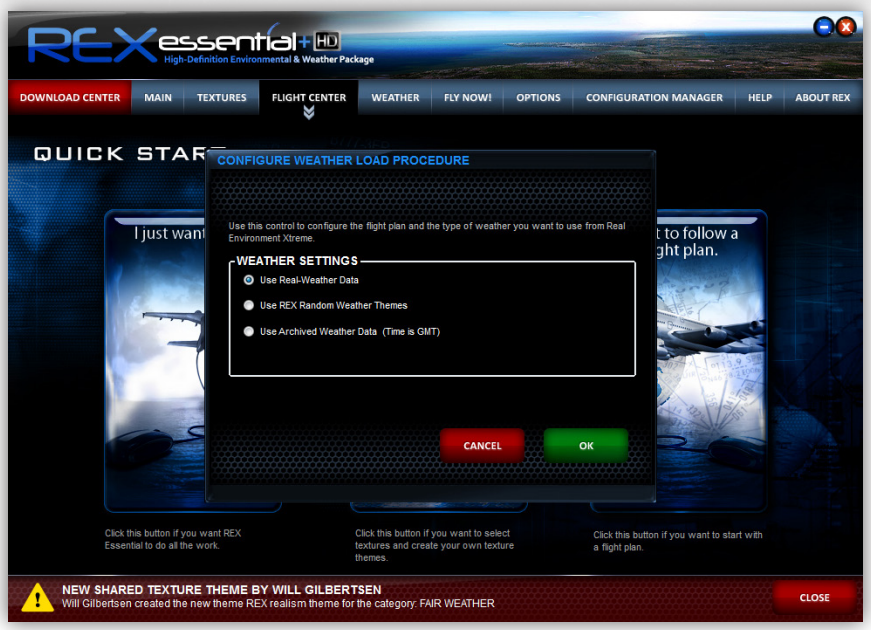
By selecting **I JUST WANT TO FLY**, you will notice a dialogue box advising REX is randomly selecting, preparing and installing textures into FSX/P3D. There are two choices here: (1) selecting **CANCEL** immediately stop the process or (2) allow REX to carry out the process. If cancelled, you will be returned to the **MAIN** screen.


REX TEXTURE ENGINE
Real Environment Xtreme is now running the process to convert and load your textures. Please wait this process will take several minutes.
CANCEL

By selecting **I LIKE TO CREATE**, you will be navigated to the main **TEXTURES** page as seen below. This area is for the user who would like to select textures, create texture themes and share or browse textures with the rest of the REX online community. This section is described in greater detail in the **TEXTURES** section.



QUICK START MENU


REX essential+ HD
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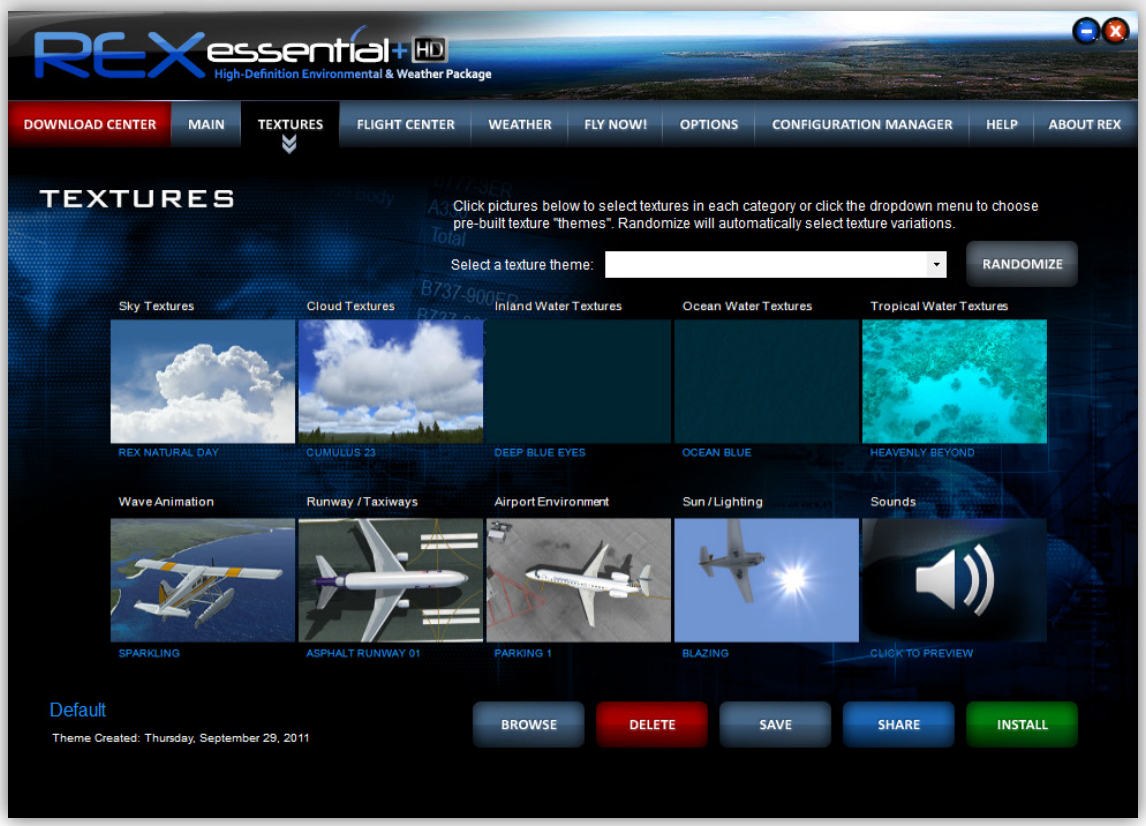
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
QUICK STAR
CONFIGURE WEATHER LOAD PROCEDURE
Use this control to configure the flight plan and the type of weather you want to use from Real Environment Xtreme.
WEATHER SETTINGS
Use Real-Weather Data
Use REX Random Weather Themes
Use Archived Weather Data (Time is GMT)
CANCEL
OK
Click this button if you want REX Essential to do all the work.
Click this button if you want to select textures and create your own texture themes.
Click this button if you want to start with a flight plan.
NEW SHARED TEXTURE THEME BY WILL GILBERTSEN
Will Gilbertsen created the new theme REX realism theme for the category: FAIR WEATHER
CLOSE

By selecting **I JUST WANT TO FOLLOW A FLIGHT PLAN**, you will be presented with the **CONFIGURE WEATHER LOAD PROCEDURE** window. You may select real-world/real-time weather, random weather or archived weather on your flight within FSX/P3D. This area is for the user that wants to create or import a flight plan, view potential weather that may be present along the flight path *(real-time weather)*, analyze the various navigation logs that REX creates, and have REX choose and install textures appropriate for the weather.

You may also interface with **FlightAware's** real-world live flight plans and upload/browse flight plans with the rest of the REX online community.

IMPORTANT NOTE:

The descriptions above for the three **QUICK START** buttons are explained in greater detail in their respective chapters. Please view and read these chapters to fully realize what each feature is capable of.



The **TEXTURES** area consists of 9 categories of texture selections.

Clicking on any one of the 9 rectangular windows expands each section so you may select more textures within that genre.

If you wish to save all textures within your own custom texture theme, click the **SAVE** button and you will be prompted to name your theme.

INSTALL will place the selected textures into FSX/P3D. The name of the installed "theme" is displayed on the lower left-hand corner of the screen.

SELECT A TEXTURE THEME - This drop-down selection menu contains a list of texture themes shipped with REX and any themes created by you. Highlighting a theme name will cause it to be loaded into the 9 smaller windows, and will be installed into flight simulator when the **INSTALL** button is clicked.

DELETE will delete texture themes from the drop-down menu**.** Highlighting a theme name and selecting **DELETE** will remove it from the list.

RANDOMIZE allows REX to randomly choose textures from each of the 9 texture categories.

RANDOMIZE is a great feature, and ensures a unique and interesting flight each time!

Clicking on the **SOUND ICON** allows you to preview the sounds available within REX as a compilation rather than a single-sound source preview, allowing you a full auditory experience of what REX is capable of while in-flight.

If no sound is audible, make sure ENABLE APPLICATION SOUNDS is checked ON in the GENERAL section of the CONFIGURATION MANAGER.

BROWSE and **SHARE** are great features utilizing **REX EDGE Technology**.

With **REX EDGE** you have the ability to share your customized texture themes with the whole REX Community.

If you create that killer look and would like to share it with others, you now have the ability to do that.

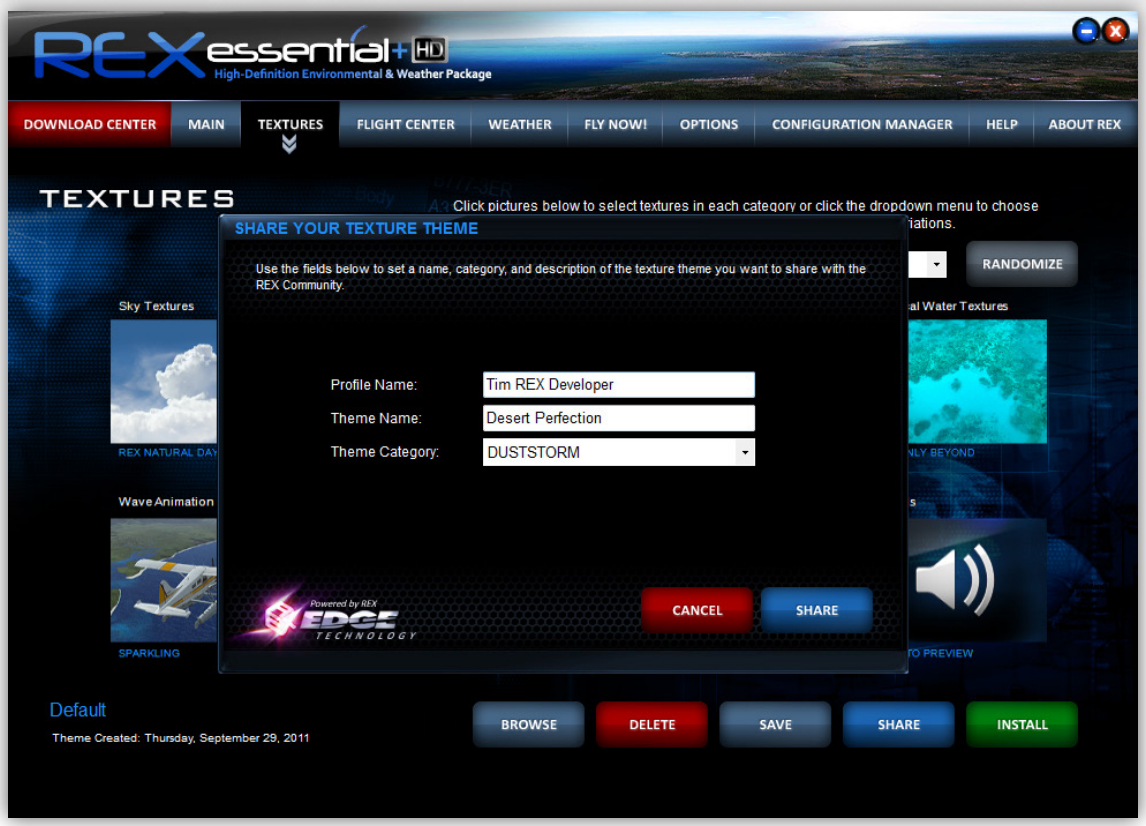
Or with the simple click of a button you can install another user's customized texture theme in a matter of seconds.

We have added categories to texture themes so that you can search by creator name or texture theme category.

Select **BROWSE** on the **TEXTURES** page and the window in the sample above appears. You may search, select and load texture themes that other REX users have created. Section A in the sample above represents the available texture themes. Once you choose a texture set to experiment with, click the **THEME ID** number to automatically load the desired theme into your REX. You may narrow the available criteria by using the **SEARCH** function as shown section B.

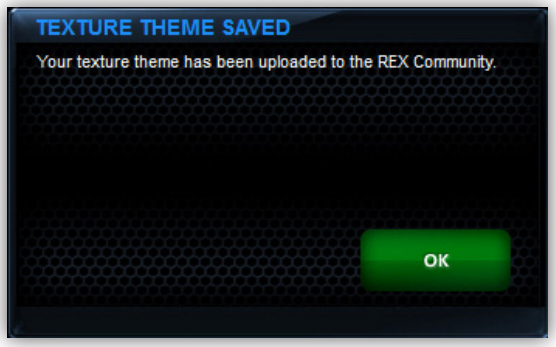
You may exit this screen at any time by selecting **CANCEL** to return to the main **TEXTURES** page.

You must select the INSTALL button for textures to install into FSX/P3D.



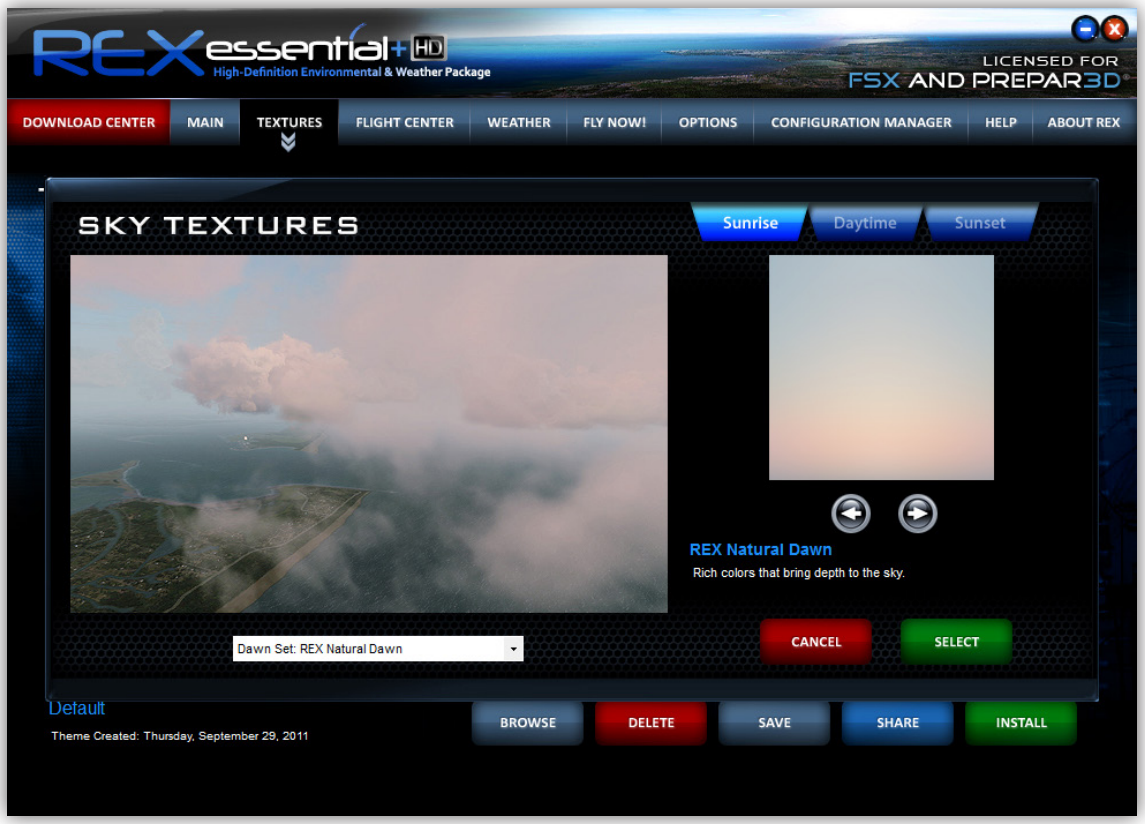
Once you are satisfied with your texture selections and wish to share them with fellow REX community users, click the **SHARE** button.

Within this window you will need to enter a *THEME NAME* and choose a *THEME CATEGORY*. Once the fields are entered, selecting **SHARE** will confirm the addition of your creation to the database.



Now others from within the REX community will be able to search, find, load and experiment with your texture selections inside of FSX/P3D!

SKY TEXTURES WINDOW - EXPANDED



The 9 texture windows are crucial in selecting your desired textures within REX. Read further, as we discuss each window and how to use them.

Clicking on the **SKY TEXTURES** window displays the screen as shown above. Let's take a detailed look at how these windows work.

On the left side of the window there is a picture of how the selected **SKY TEXTURE** appears in-game. The name, **REX Natural Dawn** is selected and displayed in the drop-down menu just under the large screenshot. On the right side is a basic color view of the sky, including a short description.

To select another texture in the **SUNRISE** category, either click on one of the two arrows under the small screenshot on the right side of the screen or use the drop-down menu to select another texture set. Click on any name within the dropdown list to select that set. Find your desired texture and click on **SELECT** to commit to it, or **CANCEL** to exit the current screen.

Note the 3 tabs on this screen. These are the 3 categories contained in the main SKY TEXTURES area; Sunrise, Daytime and Sunset. Make certain to visit each area and select your desired textures accordingly.

CLOUD TEXTURES WINDOW - EXPANDED

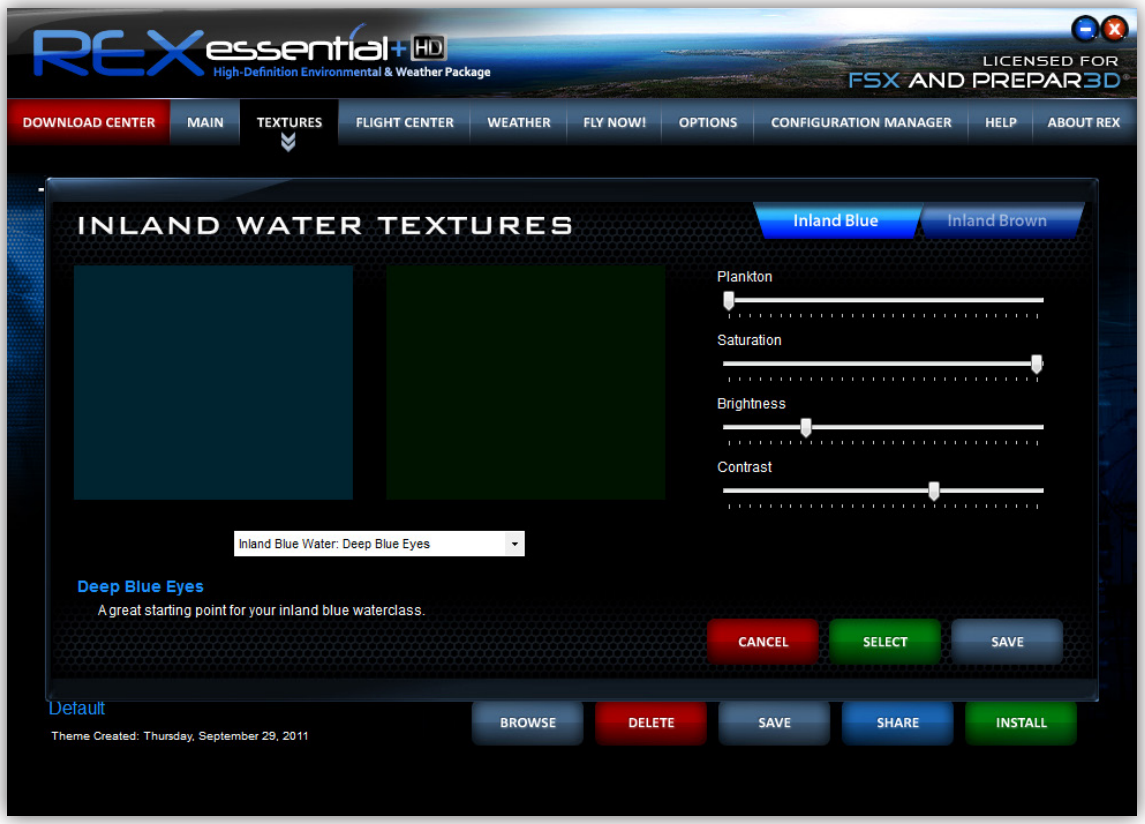
Clicking on the **CLOUD TEXTURES** window displays the screen above. Notice that the **3D CLOUDS** tab is highlighted and the selection shown is a High Definition (HD) cloud theme labeled as **Cumulus Set: 31 Cumulus HD Enabled**. There are only two tabs, **3D CLOUDS**, (which contain cumulus, stratus and wispy clouds), and the **CIRRUS CLOUDS** tab.

If high-definition clouds are desired, you must choose a set that displays the HD logo within the window pane.

Click on the drop-down menu or select the arrow keys to view the various texture selections.

Choose your desired texture set and click on the **SELECT** button to commit to it, or select the **CANCEL** button to exit the screen and return to the main **TEXTURES** page. The same applied for the **CIRRUS CLOUDS** tab, make a selection and click on the **SELECT** or **CANCEL** buttons as previously described.

INLAND WATER WINDOW - EXPANDED



The choices for **INLAND**, **OCEAN WATER** and **TROPICAL WATER** are modified the same way, however, the sliders are used to customize textures further. This technique is illustrated below with the **INLAND WATER** selection. NOTE: The exact same procedure is used to modify the **OCEAN WATER** and the **TROPICAL WATER** textures.

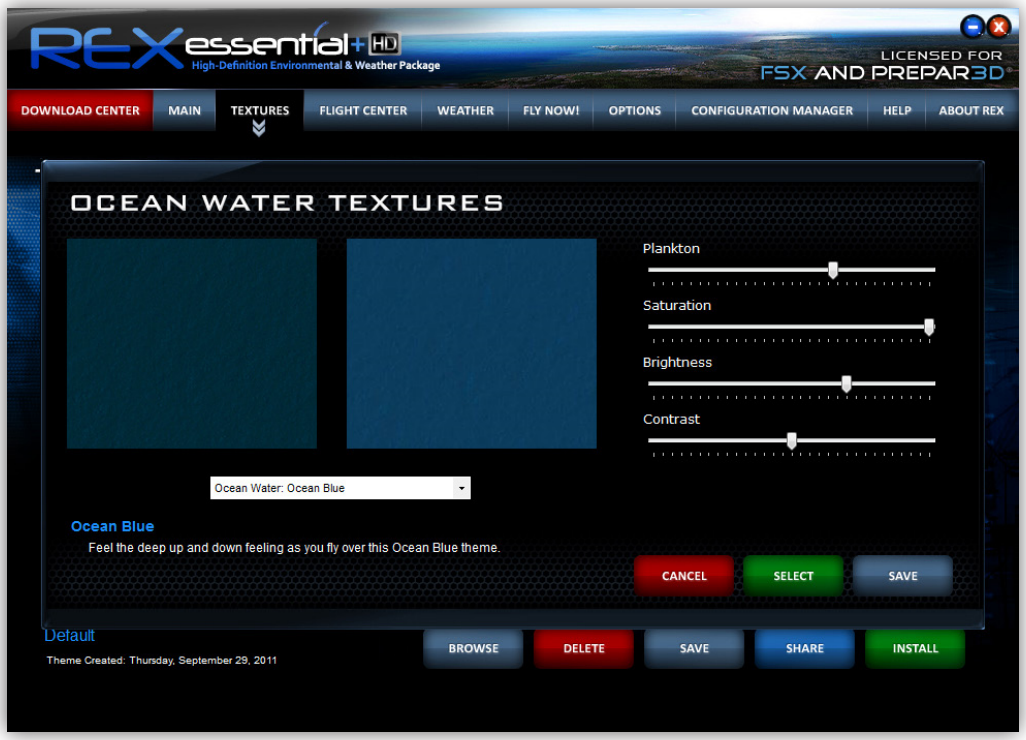
The **INLAND WATER TEXTURES** window is shown above. There are two tabs, **Inland Blue** and **Inland Brown**, a drop-down selection window and four sliders. There are also two pictures above the drop-down selection menu. The left displays the original water texture, and the right displays the real-time changes you make to the textures via the sliders.

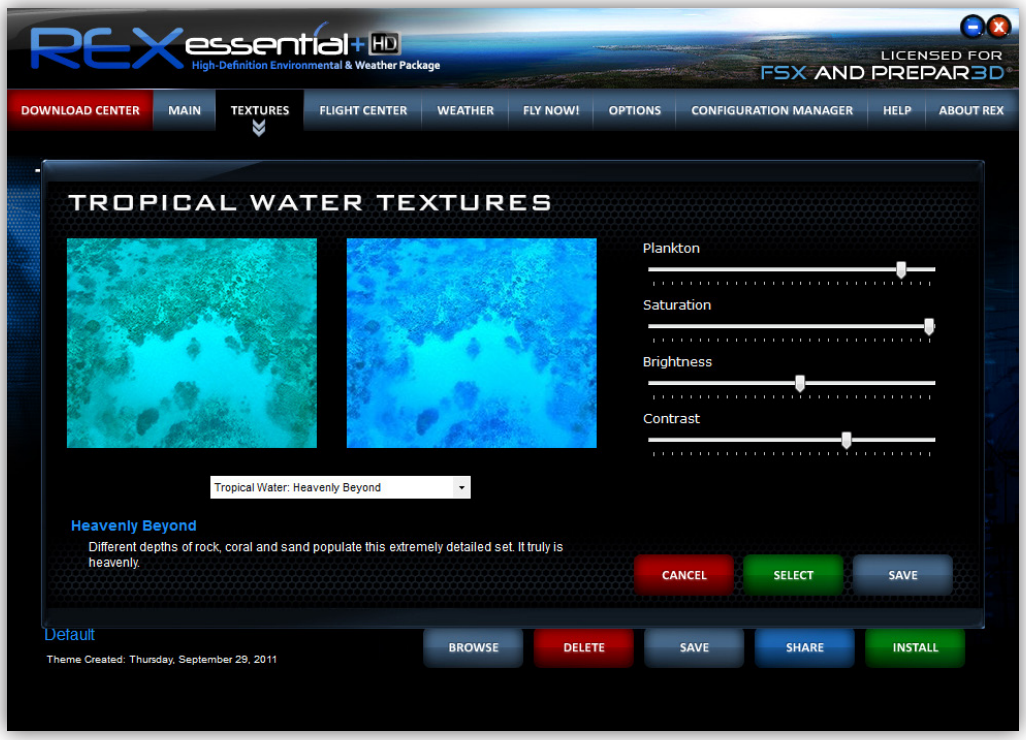
The sliders are moved one-by-one, to the left and right causing changes to the water textures.

As the example above displays, **Deep Blue Eyes** is selected within the **Inland Blue** area and displays the changes when the top slider **(Plankton)** is moved to the left. The color of the texture on the right side picture changes accordingly. Similarly, the other sliders can be adjusted until the water has just the right look. When all adjustments to **INLAND WATER** have been completed, including both **INLAND BLUE** and **INLAND BROWN** tabs, select **SAVE** to save all the changes made. You will be prompted to give each water texture 'theme' a name. Choose the **SELECT** button to commit to your selection or select the **CANCEL** button to exit the screen and return to the main **TEXTURES** page.

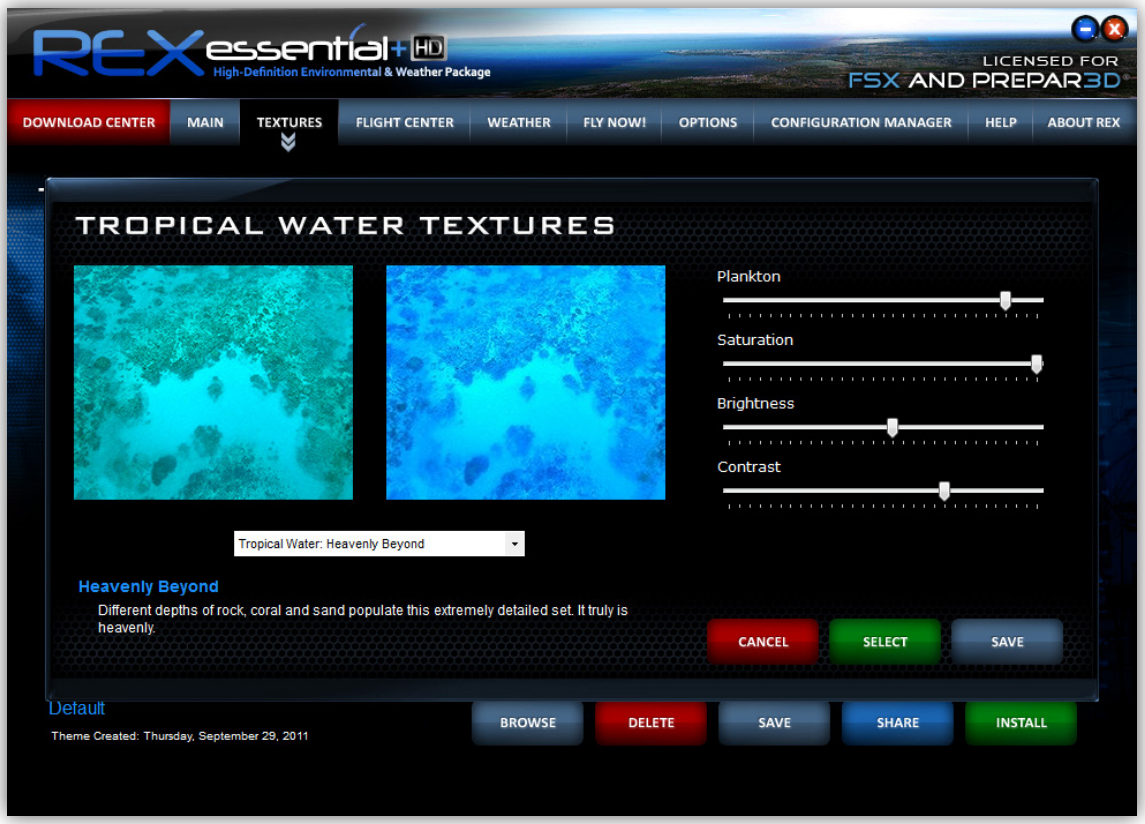
Clicking the **dropdown selection menu** will allow you to select a previously saved water theme.

OCEAN AND TROPICAL WATER WINDOWS - EXPANDED





TROPICAL WATER WINDOW - EXPANDED

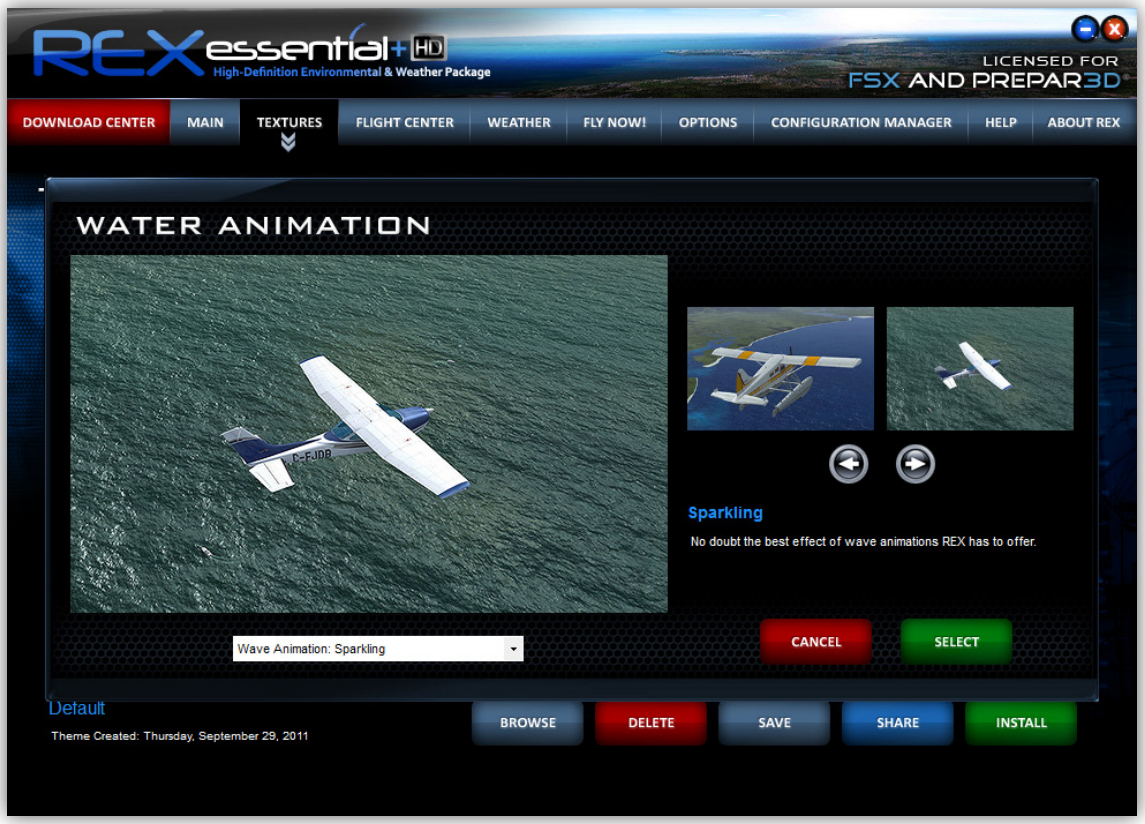


We highly recommend that users who have an interest in experimenting with these texture sets try out all the various texture modification tools described in these last few pages and find out what looks best to you. When flying in different locations, you may want to use different texture themes. For example, coral reefs found in Hawaii as seen above are not going to be found at the Great Barrier Reef.

The **Wave Animation**, **Runway/Taxiways**, **Airport Environment**, and **Sun/Lighting** area are all the same as the **Sky Textures** and **Cloud Textures** areas in regards to how you select textures. Whereas the **Wave Animation** has only one theme to modify, the **Runway/Taxiways** and **Airport Environment** themes each have 4 tabs that can be selected from and the **Sun/Lighting** area has 6 tabs that can selected from.

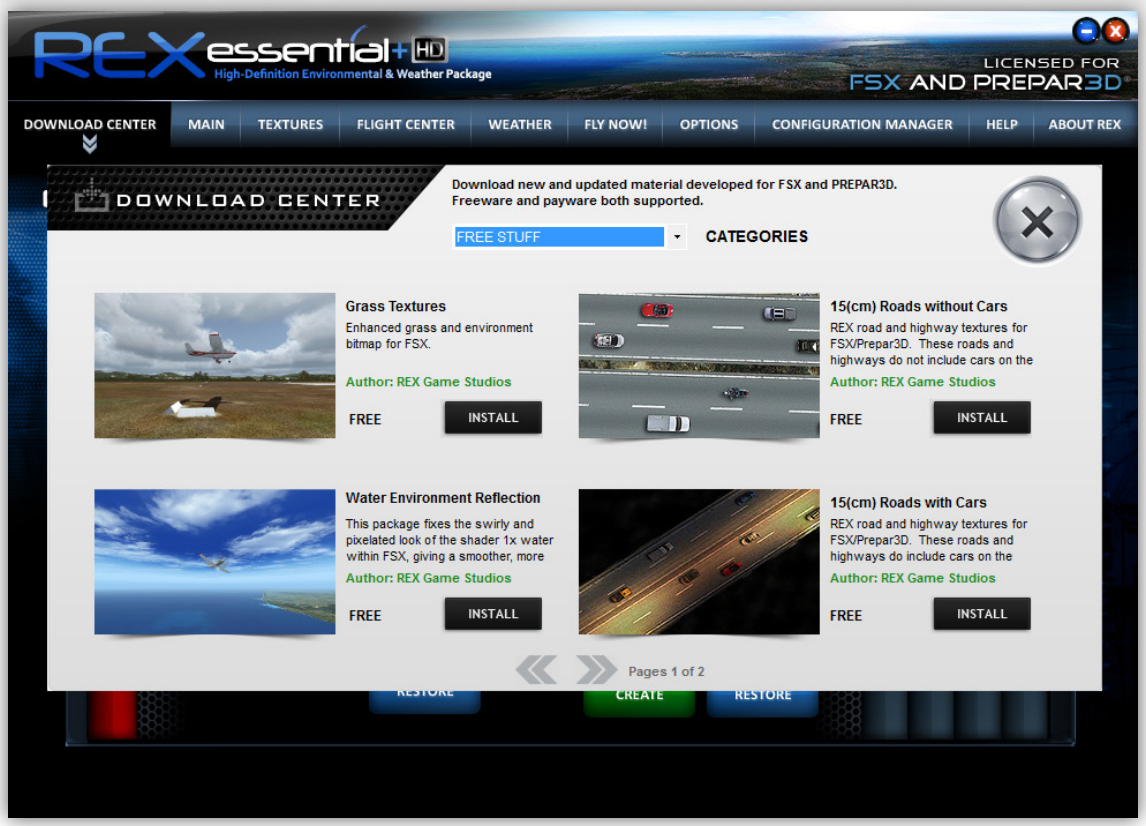
The landclass and water classification files within the simulator are what ultimately determine what textures are found in certain locations around the globe. REX only provides textures.

WAVE ANIMATION WINDOW - EXPANDED



REX water animation will only function if Low 2X or higher is selected within FSX!

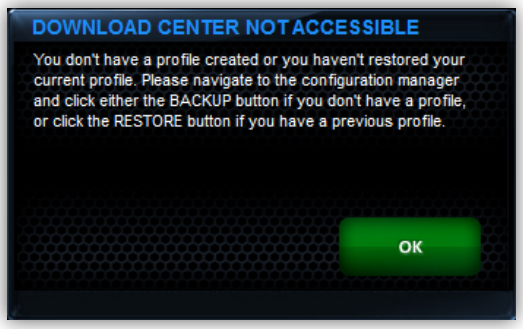
REX DOWNLOAD CENTER



The **DOWNLOAD CENTER** is a method in which REX Game Studios can pass along new and updated material developed for FSX/P3D to our customers.

The process of installing/re-installing new material is handled within the back-end of REX. Think of the download center as a marketplace for new things that add life to FSX/P3D.

With the simple click of a button the original material within FSX/P3D is backed up and the new material is installed. If you ever need to re-install the new material, revisit the item you wish to install and simply click the **INSTALL** button. The download center will be growing over time with new and fresh material from our development team.

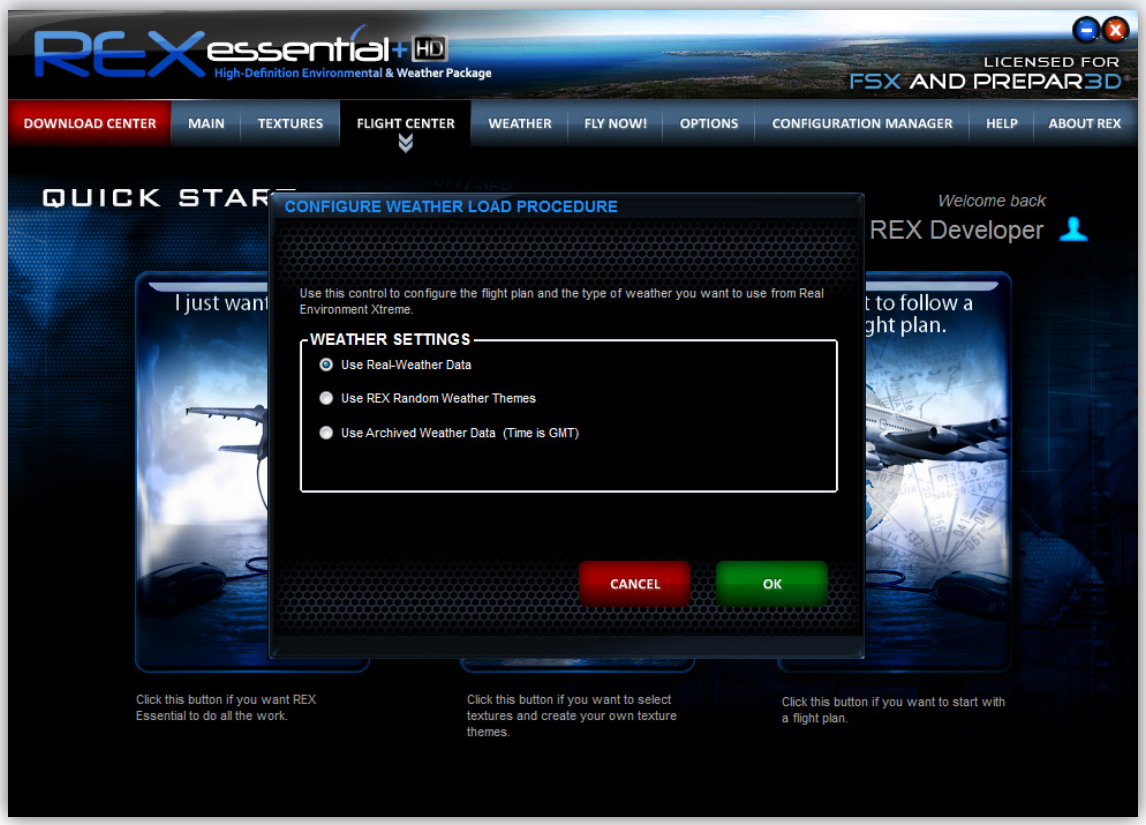

DOWNLOAD CENTER NOT ACCESSIBLE
You don't have a profile created or you haven't restored your current profile. Please navigate to the configuration manager and click either the BACKUP button if you don't have a profile, or click the RESTORE button if you have a previous profile.
OK

If upon clicking the **DOWNLOAD CENTER** button, you are presented with the above prompt, this means you are not logged in via the **CONFIGURATION MANAGER**. You MUST create a backup within the **BACKUP/RESTORE CONFIGURATION** area in order to use the **DOWNLOAD CENTER**.

IMPORTANT NOTE:

It's important that FSX/P3D not be open and running during the time of installation, as the material may not be installed correctly.

FLIGHT CENTER


REX essential+ HD
High-Definition Environmental & Weather Package
LICENSED FOR
FSX AND PREPAR3D
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
QUICK STAR
CONFIGURE WEATHER LOAD PROCEDURE
Use this control to configure the flight plan and the type of weather you want to use from Real Environment Xtreme.
WEATHER SETTINGS
Use Real-Weather Data
Use REX Random Weather Themes
Use Archived Weather Data (Time is GMT)
CANCEL
OK
Welcome back
REX Developer
I just want
t to follow a
ght plan.
Click this button if you want REX Essential to do all the work.
Click this button if you want to select textures and create your own texture themes.
Click this button if you want to start with a flight plan.

The **FLIGHT CENTER** is used when you wish to create or import an existing flight plan, review the weather along the route, and review/print out the flight nav and weather logs.

You may use the capabilities of REX to examine this weather and carefully choose and install textures into flight simulator that best represent the weather for the route.

FlightAware

You may also interface with **FlightAware's** real-world live flight plans and upload or browse flight plans with the rest of the REX community with **REX EDGE Technology**.

Upon entering the **FLIGHT CENTER**, you are presented with the **CONFIGURE WEATHER LOAD PROCEDURE** dialogue box as seen above. You may select **real-world/real-time weather**, **random weather** or **archived weather** on your flight within FSX/P3D. Each of these will be described in detail within the **WEATHER** section of this manual.

REAL FLIGHT PLANS-FlightAware

REX essential+ HD
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LICENSED FOR
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DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
REX COMMUNITY FLIGHT CENTER
REAL FLIGHT PLANS
FlightAware
Real Live Flight Plans
FLY REAL-WORLD FLIGHT PLANS, INCLUDING DESTINATION, ARRIVAL AND WAYPOINT INFORMATION. IMPORT DIRECTLY INTO REX FOR COMPLETE & REALISTIC FLIGHT PLANNING CAPABILITIES INCLUDING WEATHER ALONG A ROUTE. EXPORT DIRECTLY TO FLIGHT SIMULATOR FOR EXTRA REALISM!
SUBSCRIBE NOW
Authorize.Net
$1.99 USD SUBSCRIPTION COST PER MONTH
CANCELLATION AND PRIVACY POLICY: You can cancel your subscription at any time. Once cancelled, we will stop charging your account the following billing cycle. Each billing cycle is four weeks, so your unlimited access will continue for the remainder of the current four-week period. REX Game Studios does not store personal payment information on its servers. Payment Information is transmitted securely using encryption technology and processed through a secure third-party payment gateway. By clicking SUBSCRIBE NOW you accept our privacy policy.
COMMUNITY FLIGHT PLANS
IMPORT OR CREATE A FLIGHT PLAN
WEATHER DOWNLOAD PROCESS
Converting Taf Reports...
Please wait until completed!

After selecting the type of weather you wish to use for your flight, select **OK**. The first screen within the **FLIGHT CENTER** is shown above. This area is labeled **REAL FLIGHT PLANS,** as seen on the large vertical tab to the left-side of the screen. The two other sections within the new **FLIGHT CENTER** are **COMMUNITY FLIGHT PLANS** and **IMPORT OR CREATE A FLIGHT PLAN,** as seen on the large vertical tabs to the right-side of the screen.

The **REAL FLIGHT PLANS** area is for users who wish to use the **FlightAware** technology built into REX. **This a subscription-based service.*

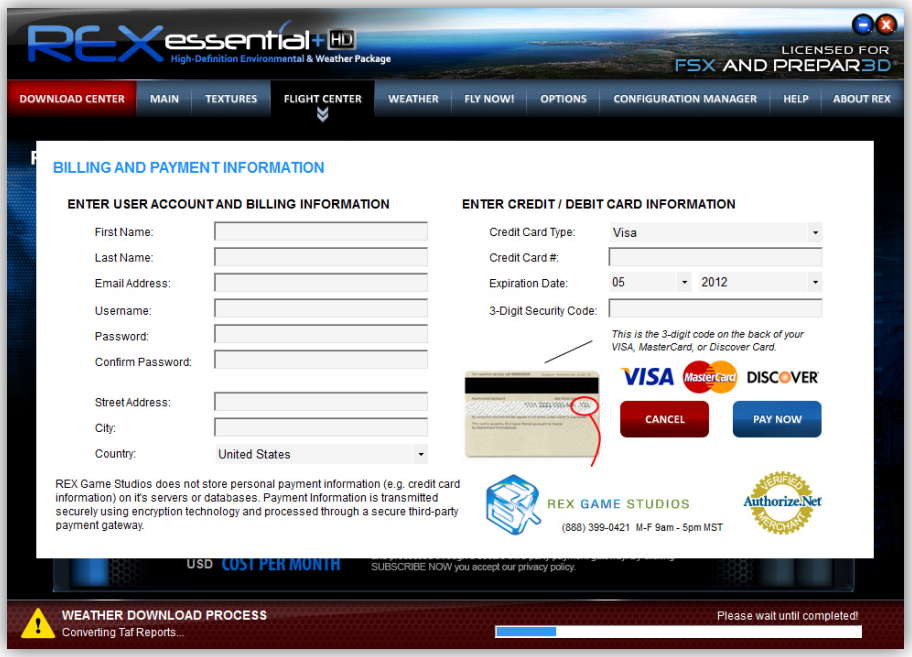
To subscribe for the built-in **FlightAware** technology within REX, click **SUBSCRIBE NOW**. You will be presented with the payment area as seen on the following page. Be sure to accurately complete all areas of the form to ensure correct processing. Sorry, but PayPal payments will not be accepted. **Please note that flight details are limited outside of the United States!**

**REX Game Studios® incurs costs with use of this service each time a user interacts with FlightAware. REX Game Studios® does not store personal payment information (e.g. credit card information) on it's servers or databases. Payment information is transmitted securely using encryption technology and processed through a secure third-party payment gateway.*

IMPORTANT NOTE:

The FlightAware subscription-based service is not mandatory to take full advantage of other built-in flight planning features.

REAL FLIGHT PLANS-FlightAware *(continued)*



After entering information, click **PAY NOW** and you will be connected with Authorize.net to complete and process payment. Once payment is processed, you will be emailed a receipt within 24 hours.

Access to the FlightAware area within REX is unlocked immediately as seen below. REX Game Studios is a verified Authorize.Net merchant.

REAL FLIGHT PLANS-FlightAware *(continued)*

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LICENSED FOR
FSX AND PREPAR3D
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
REX COMMUNITY FLIGHT CENTER
REAL FLIGHT PLANS
POWERED BY
FlightAware
CANCEL SUBSCRIPTION
SEARCH FOR FLIGHTS BETWEEN AIRPORTS:
Departure (ICAO Code): KPHX
Arrival (ICAO Code): KJFK
SEARCH
GET FLIGHTS
OR SEARCH FOR SCHEDULED FLIGHTS:
Airport (ICAO Code):
Airport: Phoenix Sky Harbor Intl
Location: Phoenix, AZ
Status: VFR KPHX 050051Z 29007G14KT 10SM FEW120 39/M01 A2971 RMK AO2 SLP038 T03891011
FLIGHT ID | AIRLINE | AIRCRAFT | DEP | ARR | DEP TIME | ARR TIME
AWE16 | US AIRWAYS | A321 | KPHX | KJFK | 3:24 PM | 7:44 PM
AWE18 | US AIRWAYS | A321 | KPHX | KJFK | 10:27 PM | 2:39 AM
JBU180 | JETBLUE AIR... | A320 | KPHX | KJFK | 11:57 PM | 3:52 AM
DAL1994 | DELTA AIR LI... | B738 | KPHX | KJFK | 7:10 AM | 11:19 AM
AWE12 | US AIRWAYS | A321 | KPHX | KJFK | 9:11 AM | 1:13 PM
DAL2123 | DELTA AIR LI... | B738 | KPHX | KJFK | 11:50 AM | 4:01 PM
**FlightAware does not always provide full routes for international flights.
COMMUNITY FLIGHT PLANS
IMPORT OR CREATE A FLIGHT PLAN

With **FlightAware** incorporated into REX, you're able to search for real-world, real-time IFR flights scheduled at a single airport or routes between two airports. You're provided details about the flight and able to import the flight plan into FSX/P3D via REX.

REX will provide up-to-date flight notifications via the weather engine while in-flight. If selecting an airport to search, then navigate to another module of REX, you will be provided regular alerts of the next flight scheduled to depart from that airport.

The **CANCEL SUBSCRIPTION** button is used to cancel your **FlightAware** subscription at any time. However, doing so will immediately halt all **FlightAware** actions within REX.

SEARCH FOR FLIGHTS BETWEEN AIRPORTS

You may search routes between two airports using the **Departure (ICAO CODE)** and **Arrival (ICAO CODE)** fields. In the sample above, KPHX is selected as departure, and KJFK as arrival. Click the **GET FLIGHTS** button to retrieve all flights within these parameters. Once the servers return results, fields are populated with data, including departure airport information, airline flight ID, airline, aircraft, departure and arrival times.

Simply click on a **flight ID** link to load the FlightAware plan into the REX flight planning module. This may take some time, depending on the complexity of the flight plan filed.

REAL FLIGHT PLANS-FlightAware *(continued)*

Once the flight plan has been successfully loaded into REX, you are presented with the preliminary flight plan information as seen above, including; **name of air carrier**, **type of aircraft**, **schedule status**, **origin**, **destination**, **gate assignments**, **metar**, **filed speed**, **filed altitude**, **filed duration**, **and finally the filed route**.

Selecting **BACK** will return you to the previous screen, while selecting **LOAD PLAN** will actually parse, create and load the **FlightAware** flight plan in REX. Again, this process may take some time, depending on the complexity of the route filed. Please be patient while this process is parsed.

REAL FLIGHT PLANS-FlightAware *(continued)*

Presented above is the chosen **FLIGHT PLAN DETAILS** screen. This example illustrates the result after a **FlightAware** flight plan is submitted. Note the section labelled **FLIGHT PLAN WAYPOINTS**.

This area displays crucial flight plan information along the route including wind speeds, winds aloft details, waypoints, distance to next waypoint, total distance, total time and waypoint **ID's**.

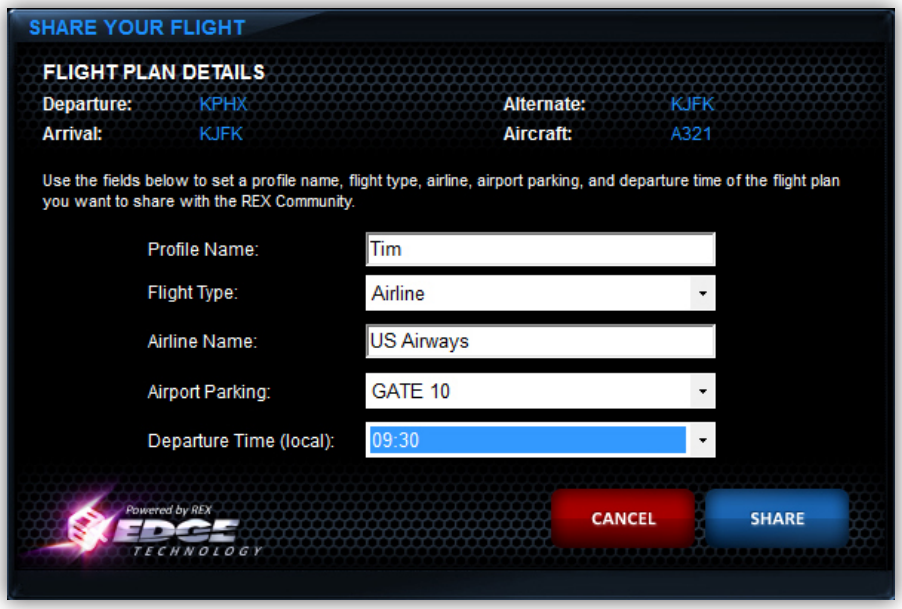
There are two buttons labeled **NAV LOG** and **SHARE**. The **NAV LOG** button opens a notepad file containing pertinent information about the flight plan. You may save or print this plan for a more interesting flight.

The **VIEW WINDS** and **TEMPS ALOFT** options great features in REX.

The winds and temperatures aloft are provided by actual real balloon data through NOAA.

This data is downloaded from NOAA twice a day and stored on the REX EDGE servers, storing current and past upper level data, allowing you to fly in the most current weather, or if you choose to fly in archive weather, the upper level data for that day is also available.

REAL FLIGHT PLANS-FlightAware *(continued)*

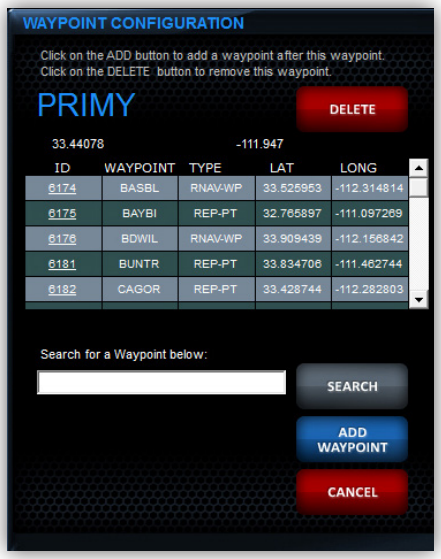

SHARE YOUR FLIGHT
FLIGHT PLAN DETAILS
Departure: KPHX
Alternate: KJFK
Arrival: KJFK
Aircraft: A321
Use the fields below to set a profile name, flight type, airline, airport parking, and departure time of the flight plan you want to share with the REX Community.
Profile Name: Tim
Flight Type: Airline
Airline Name: US Airways
Airport Parking: GATE 10
Departure Time (local): 09:30
Powered by REX EDGE TECHNOLOGY
CANCEL
SHARE

Share your flight plans with fellow REX community users.

If you already entered a **PROFILE NAME** in the **CONFIGURATION MANAGER** then this field is automatically completed. Complete all fields, including **FLIGHT TYPE**, **AIRLINE NAME**, **AIRPORT PARKING** and **DEPARTURE TIME (local)**. When all fields are completed, click **SHARE**.

Your plan is uploaded to the REX data servers for immediate use by all other REX users within the community.

Select **CANCEL** to return back to the **FLIGHT PLAN DETAILS** area.



The waypoint **ID** column of the **FLIGHT PLAN WAYPOINTS** area is used to add & delete waypoints. Selecting on ANY **ID** link will open the **WAYPOINT CONFIGURATION** (as seen on the right). This is where you may add, delete or search waypoints.

Select the **ID** link of the waypoint you want to delete or search for it via the **SEARCH** field, then click **DELETE** to remove the waypoint from the current flight plan. To add a waypoint, select or search the desired waypoint, then click **ADD WAYPOINT**. The flight plan will now be updated.

REAL FLIGHT PLANS-FlightAware *(continued)*

The 6 buttons along the bottom of the **FLIGHT PLAN DETAILS** screen allows REX to perform certain tasks after your desired flight plan is ready.

BACK navigates you back to the previous screen.

RELOAD WX reloads the most current weather. This is handy if you have taken time in preparing your flight plan and you would like to make sure you are presented with the latest weather data.

WX TEXTURES analyzes weather conditions and chooses a set of textures that match. Select **WX TEXTURES** and REX will begin installing textures into flight simulator.

WX AVOIDANCE is a real-time weather view with the flight plan overlaid upon the map. This is known as the Weather Avoidance System (WASys) and is described in more detail later in this manual.

SAVE displays a dialogue box which allows the current flight plan to be saved in .pln format. These flight plans can be imported into FSX/P3D. Plans that are saved in this section are saved to your REX/FlightPlans folder as well as your DOCUMENTS/FLIGHT SIMULATOR X FILES. Upon clicking **SAVE,** the flight plan is saved, REX is minimized, the REX WASys is opened as well as flight simulator.

FLY NOW starts the process of opening flight simulator and the weather engine *(if enabled in the* **CONFIGURATION** *menu).*

It is very important that FSX/P3D is NOT running before selecting the WX TEXTURES process!

IMPORT OR CREATE A FLIGHT PLAN

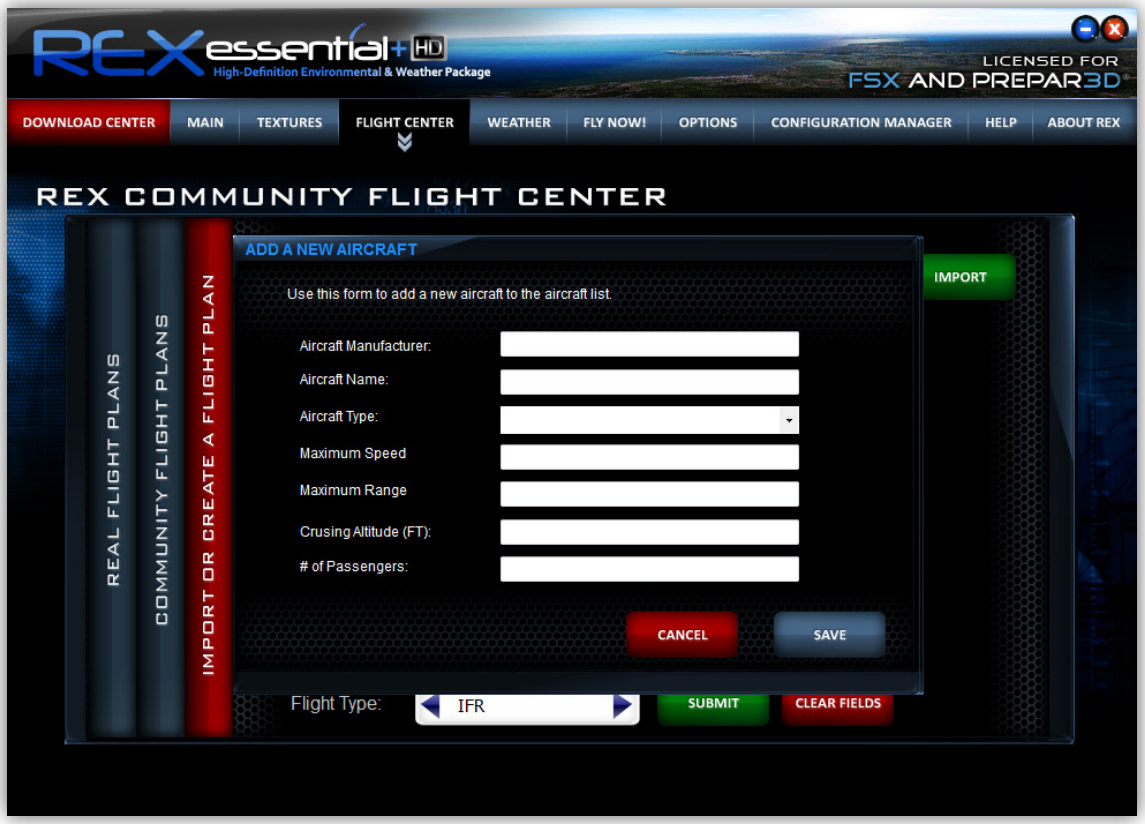
Within the **IMPORT OR CREATE A FLIGHT PLAN** area, you may:

1. Create a flight plan to be used within FSX/P3D.

2. Import a previously created flight plan from FSX/P3D or other 3rd party flight planners. To accomplish this, simply click the **IMPORT** button and locate the plan you wish to import into REX.

3. Browse and load a previously saved REX flight plan. To accomplish this, simply click the **BROWSE** button and locate the plan you wish to import into REX.

IMPORT OR CREATE A FLIGHT PLAN *(continued)*



To create a flight plan, enter information in the appropriate fields. Some of these fields can be searched by selecting the **ADD AIRCRAFT** or **SEARCH** buttons.

To select an aircraft, simply click on the aircraft name and it will automatically be added to the field in the flight planner along with a default altitude and airspeed that is added to the respective fields. These values can be changed by editing the fields afterwards.

If the required aircraft is not present within the list of available aircraft, new aircraft may be added by clicking **ADD NEW**. The **ADD A NEW AIRCRAFT** menu is shown above.

Fill in the required information, select **SAVE** and the aircraft will be added to the aircraft list.
Click on this new aircraft within list and the aircraft, altitude and air speed will be populated into their respective fields. **CANCEL** returns to the **AIRCRAFT SELECTION** menu.

IMPORT OR CREATE A FLIGHT PLAN *(continued)*

As shown above, a completed flight plan form is set up for a flight from Los Angeles (KLAX) to Denver (KDEN) with Colorado Springs (KCOS) as an alternate. The aircraft is a Boeing 757 at a modified altitude of 37,000' (FL370), with a modified speed of 450 kts and 6 desired waypoints.

At this point the data entry is finished and the plan can be submitted by selecting **SUBMIT**. A message will be displayed stating that REX is processing the flight plan. Please be patient, this could take time, depending on the amount of waypoints selected.

IMPORT OR CREATE A FLIGHT PLAN *(continued)*

REX essential+ HD
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LICENSED FOR FSX AND PREPAR3D
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
FLIGHT PLANNER
FLIGHT PLAN DETAILS
DATE OF WEATHER: 6/5/2013 / 1Z
Departure: KLAX
Arrival: KDEN
Alternate: KCOS
Aircraft: BOEING 757
Cruising Altitude: 37000
Cruise Speed: 450
Distance: 748
Total Time: 01:27
NAV LOG
SHARE
FLIGHT PLAN WAYPOINTS
VIEW WINDS ALOFT
VIEW TEMPS ALOFT
ID WAYPOINT DIST (NM) DIR FLT TIME 1000FT 3000FT 5000FT 10000FT 18000FT 24000FT 30000FT 35000FT 39000FT
21 KLAX 0 00:00 360/1 145/3 190/15 195/17 210/34 220/73 240/100 250/106 255/104
22 35N16 135 067 00:16 360/1 200/13 235/21 125/15 200/25 180/50 190/48 215/48 225/54
23 36N14 115 067 00:13 360/1 200/13 235/21 125/15 200/25 180/50 190/48 215/48 225/54
24 AROGE 133 070 00:15 360/1 360/1 360/1 210/46 215/32 235/52 225/50 245/67 245/104
25 39N07 248 065 00:29 360/1 360/1 360/0 275/25 275/64 260/69 275/85 275/85 265/91
26 ACTOR 124 070 00:14 360/1 360/1 360/1 300/13 280/75 270/69 265/85 270/104 275/114
27 KDEN 9 305 00:01 360/1 360/1 360/1 300/13 280/75 270/69 265/85 270/104 275/114
BACK
RELOAD WX
WX TEXTURES
WX AVOIDANCE
SAVE
FLY NOW

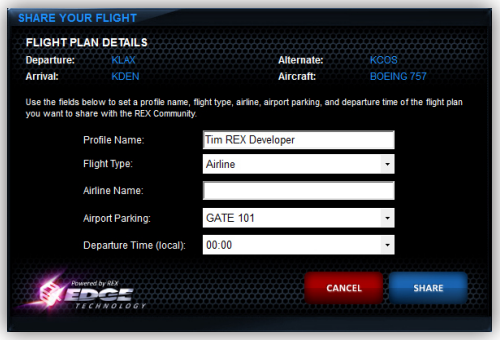
When REX has completed the compiling of the flight plan, the screen above appears. This example illustrates the result after a flight plan is submitted.

Note the section labelled **FLIGHT PLAN WAYPOINTS**.

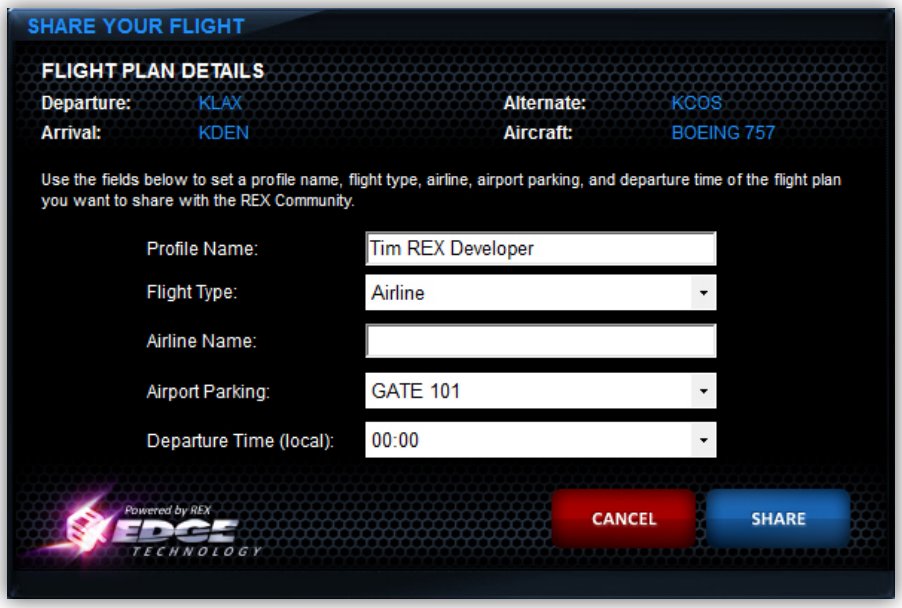
This area displays crucial flight plan information along the route including wind speeds, winds aloft details, waypoints, distance to next waypoint, total distance, total time and waypoint **ID's**.

There are two buttons labeled **NAV LOG** and **SHARE**. The **NAV LOG** button opens a notepad file containing pertinent information about the flight plan. You may save or print this plan for a more interesting flight.

SHARE allows you to share your flight plans with fellow REX community users. If you already entered a **PROFILE NAME** in the **CONFIGURATION MANAGER** then this field is automatically completed. Complete all fields, including **FLIGHT TYPE**, **AIRLINE NAME**, **AIRPORT PARKING** and **DEPARTURE TIME (local)**. When all fields are completed, click **SHARE** and your plan is uploaded to the REX data servers for immediate use by all other REX users within the community. Select **CANCEL** to return back to the **FLIGHT PLAN DETAILS** area.


SHARE YOUR FLIGHT
FLIGHT PLAN DETAILS
Departure: KLAX
Arrival: KDEN
Alternate: KCOS
Aircraft: BOEING 757
Use the fields below to set a profile name, flight type, airline, airport parking, and departure time of the flight plan you want to share with the REX Community.
Profile Name: Tim REX Developer
Flight Type: Airline
Airline Name:
Airport Parking: GATE 101
Departure Time (local): 00:00
CANCEL
SHARE

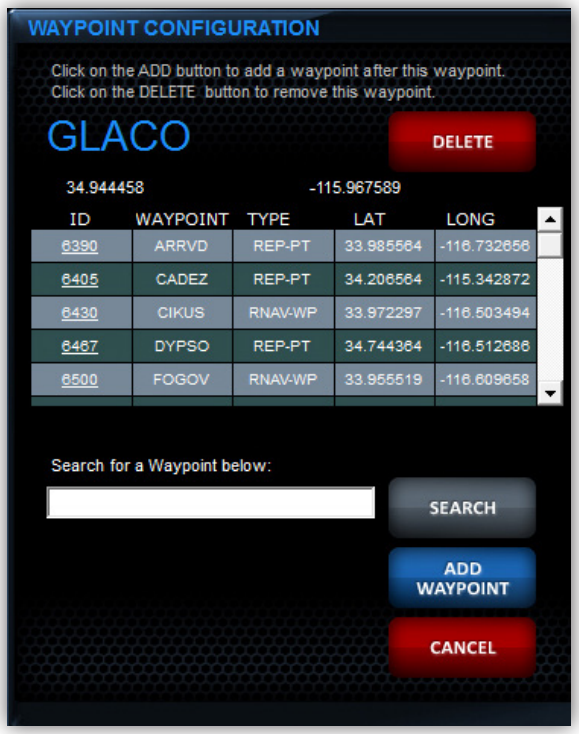
IMPORT OR CREATE A FLIGHT PLAN *(continued)*


SHARE YOUR FLIGHT
FLIGHT PLAN DETAILS
Departure: KLAX
Alternate: KCOS
Arrival: KDEN
Aircraft: BOEING 757
Use the fields below to set a profile name, flight type, airline, airport parking, and departure time of the flight plan you want to share with the REX Community.
Profile Name: Tim REX Developer
Flight Type: Airline
Airline Name:
Airport Parking: GATE 101
Departure Time (local): 00:00
Powered by REX
EDGE TECHNOLOGY
CANCEL
SHARE

The other fields that need to be selected or filled in are: **FLIGHT TYPE**, **AIRLINE NAME**, **AIRPORT PARKING** and **DEPARTURE TIME (local)**. When all fields are completed, selecting **CANCEL** will return you back to the **FLIGHT PLAN DETAILS** area, while selecting **SHARE** will upload your plan to the REX data servers for immediate use by all other REX customers within the community.

The waypoint **ID** column of the **FLIGHT PLAN WAYPOINTS** area is used to add & delete waypoints. Selecting on ANY **ID** link will open the **WAYPOINT CONFIGURATION**. This is where you may add, delete or search waypoints.

Select the **ID** link of the waypoint you want to delete or search for it via the **SEARCH** field, then click **DELETE** to remove the waypoint from the current flight plan. To add a waypoint, select or search the desired waypoint, then click **ADD WAYPOINT**. The flight plan will now be updated.



IMPORT OR CREATE A FLIGHT PLAN *(continued)*

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DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
FLIGHT PLANNER
FLIGHT PLAN DETAILS
DATE OF WEATHER: 6/5/2013 / 1Z
Departure: KLAX
Arrival: KDEN
Alternate: KCOS
Aircraft: BOEING 757
Cruising Altitude: 37000
Cruise Speed: 450
Distance: 748
Total Time: 01:27
NAV LOG
SHARE
FLIGHT PLAN WAYPOINTS
VIEW WINDS ALOFT
VIEW TEMPS ALOFT
ID WAYPOINT DIST (NM) DIR FLT TIME 1000FT 3000FT 5000FT 10000FT 18000FT 24000FT 30000FT 35000FT 39000FT
21 KLAX 0 00:00 360/1 145/3 190/15 195/17 210/34 220/73 240/100 250/106 255/104
22 35N16 135 067 00:16 360/1 200/13 235/21 125/15 200/25 180/50 190/48 215/48 225/54
23 36N14 115 067 00:13 360/1 200/13 235/21 125/15 200/25 180/50 190/48 215/48 225/54
24 AROGE 133 070 00:15 360/1 360/1 360/1 210/46 215/32 235/52 225/50 245/67 245/104
25 39N07 248 065 00:29 360/1 360/1 360/0 275/25 275/64 260/69 275/85 275/85 265/91
26 ACTOR 124 070 00:14 360/1 360/1 360/1 300/13 280/75 270/69 265/85 270/104 275/114
27 KDEN 9 305 00:01 360/1 360/1 360/1 300/13 280/75 270/69 265/85 270/104 275/114
BACK
RELOAD WX
WX TEXTURES
WX AVOIDANCE
SAVE
FLY NOW

The 6 buttons along the bottom of the **FLIGHT PLAN DETAILS** screen allows REX to perform certain tasks after your desired flight plan is ready.

BACK navigates you back to the previous screen.

RELOAD WX reloads the most current weather. This is handy if you have taken time in preparing your flight plan and you would like to make sure you are presented with the latest weather data.

WX TEXTURES analyzes weather conditions and chooses a set of textures that match. Select **WX TEXTURES** and REX will begin installing textures into flight simulator.

WX AVOIDANCE is a real-time weather view with the flight plan overlaid upon the map. This is known as the Weather Avoidance System (WASys) and is described in more detail later in this manual.

SAVE displays a dialogue box which allows the current flight plan to be saved in .pln format. These flight plans can be imported into FSX/P3D. Plans that are saved in this section are saved to your REX/FlightPlans folder as well as your DOCUMENTS/FLIGHT SIMULATOR X FILES. Upon clicking **SAVE,** the flight plan is saved, REX is minimized, the REX WASys is opened as well as flight simulator.

FLY NOW starts the process of opening flight simulator and the weather engine *(if enabled in the* **CONFIGURATION** *menu).*

It is very important that FSX/P3D is NOT running before selecting the WX TEXTURES process.

COMMUNITY FLIGHT PLANS

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DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
REX COMMUNITY FLIGHT CENTER
REAL FLIGHT PLANS
COMMUNITY FLIGHT PLANS
REX COMMUNITY FLIGHT PLANS
Click on the flight plan link below to import a flight plan. Or click the IMPORT button to import a flight plan from another flight planner.
FLIGHT ID AIRLINE DEP TIME DEP ARR AUTHOR
3303 00:00 LIRF LEMD piero2763
3302 11:30 KMIA KJAX damosta28
3301 Mediterranea Virt... 13:45 LIME EKVG Matteo 1
3300 12:15 NTAA PHNL teiri alain
3299 00:00 LGTS LGSM sakweather
3298 00:00 EFHK ENGM J.A.M
3297 pigiairlines 09:30 LIRF LFPG piero2763
3296 LivewireExpress 15:45 VHHH VNKT FoxA
3295 Private 13:15 EGEC LFPN doogie
3294 American Flight ... 19:30 LFBO HKJK Brad_oc
3293 00:00 RJTT RJCM Mikio Osanai
3292 fachn 00:00 LFPG LFRS chn1
Powered by REX EDGE TECHNOLOGY
IMPORT OR CREATE A FLIGHT PLAN

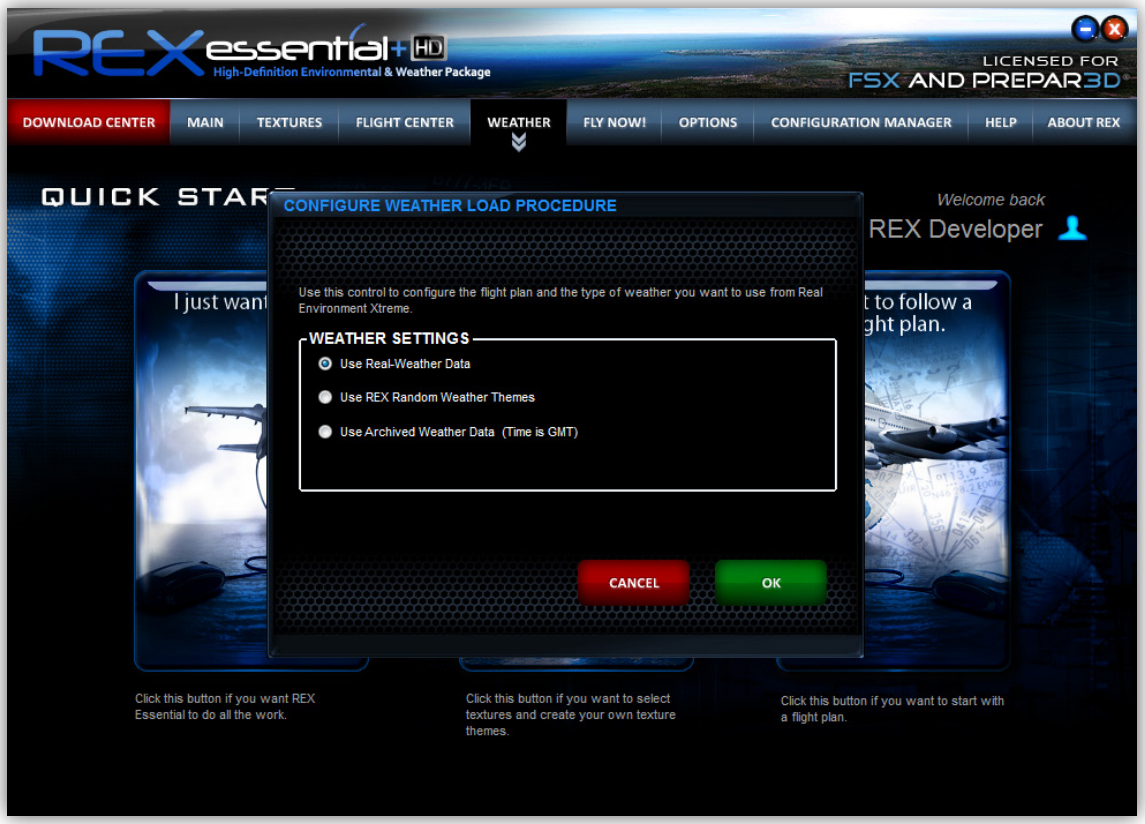
The **COMMUNITY FLIGHT PLANS** area contains all of the community shared flight plans uploaded by fellow REX users.

Looking at this screen you will notice the main area within the center of the screen, containing specific information for each shared flight.

The main area of **COMMUNITY FLIGHT PLANS** consists of; **FLIGHT ID**, **AIRLINE**, **DEPARTURE TIME**, **DEPARTURE**, **ARRIVAL** and **AUTHOR.**

To import a community shared flight plan, select the **FLIGHT ID** text link and the flight plan will download and load into REX. This process might take a moment, depending on the complexity of the flight plan selected.

REAL-TIME WEATHER ENGINE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LICENSED FOR
FSX AND PREPAR3D
DOWNLOAD CENTER
MAIN
TEXTURES
FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
Welcome back
REX Developer
CONFIGURE WEATHER LOAD PROCEDURE
Use this control to configure the flight plan and the type of weather you want to use from Real Environment Xtreme.
WEATHER SETTINGS
Use Real-Weather Data
Use REX Random Weather Themes
Use Archived Weather Data (Time is GMT)
CANCEL
OK
Click this button if you want REX Essential to do all the work.
Click this button if you want to select textures and create your own texture themes.
Click this button if you want to start with a flight plan.

Selecting **WEATHER** from the top navigation bar displays the **CONFIGURE WEATHER LOAD PROCEDURE** menu as shown above. In order to access the **WEATHER** page, the type of weather you would like to use must be selected. There are 3 types of weather you can use: Real-time weather, random weather or archived (historic) weather.

The first is real-time weather. This is a real-time download of all the metars and weather data available over the entire globe from the NOAA servers as well as TAFs and PIREPS submitted by REAL pilots all over the world.

If you selected **ENABLE VATSIM WEATHER** in the **CONFIGURATION MANAGER**, then the data that's available will be retrieved from the VATSIM network servers.

The real-weather option is used by selecting **Use Real-Weather Data** and then selecting **OK**. **CANCEL** returns to the previous screen.

REAL-TIME WEATHER ENGINE *(continued)*

To retrieve weather, type in an airport code (ICAO) or search for an airport using the **SEARCH** button, then click **SUBMIT**. Notice that the empty data fields are now populated with weather data including the metar data, winds aloft, temperatures aloft, TAF forecasts, and PIREP reports. **NOTE: Not all stations report TAF or PIREP reports. Metar winds are referenced to true north, not magnetic north.**

There are 7 buttons on the bottom of this screen. **RELOAD WX** forces a download of weather data.

The **SEARCH WEATHER** feature allows you to search for specific weather conditions, such as CLEAR, FOGGY, RAIN, SNOW and THUNDERSTORMS.

VIEW WEATHER allows you to view weather in different parts of the world.

WX TEXTURES allows REX to choose the best textures to represent the weather.

WX AVOIDANCE is the weather avoidance system. Clicking **ON/OFF** on this screen takes you back to the main **WEATHER** section. After viewing this area return back to the **WEATHER** menu and select **FLY NOW** to start FSX/P3D and the REX weather engine.

FLIGHT PLAN displays the **FLIGHT PLANNER**.

FLY NOW starts FSX/P3D, minimizes REX and starts the REX WX weather engine, the module that injects weather into the flight simulator.

When using the REX weather engine, specifically WXPLUS mode, you will notice a selection named "REX" inside the FSX Current Weather area. This selection contains the last imported weather from REX. This file is written over each time REX injects weather into FSX/P3D. **NOTE: There's no need make adjustments to the Current Weather area inside FSX when using the REX weather engine. Doing so will interfere with the REX weather engine operations.**

RANDOM WEATHER ENGINE

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DOWNLOAD CENTER
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FLIGHT CENTER
WEATHER
FLY NOW!
OPTIONS
CONFIGURATION MANAGER
HELP
ABOUT REX
RANDOM WEATHER
STEP 1 - Select Weather Region
Enter or search for an ICAO/Airport to create a random weather scenario around..
ICAO/AIRPORT:
SEARCH
STEP 2 - Create Weather Theme
Click on the arrows in the selection boxes below to create your weather theme. Then click the "GENERATE" button to create the weather situation for your region you selected. The weather situation will be generated on the map to the right.
SEASON:
WINTER
SEVERITY:
LIGHT
GENERATE
The weather may not generate in flight simulator above due to limited weather stations.
WX TEXTURES
FLIGHT PLAN
WX AVOIDANCE
FLY NOW

RANDOM WEATHER generates a large number of random weather scenarios for any location on the globe you desire. As it is way outside the scope of this product for this weather to be based on real-world actual seasonal trends specific for each place on earth, it allows for some interesting possibilities.

Ever wanted to fly in a snow storm in Hawaii? You can with this feature. Additionally, REX can choose textures that will best represent the weather and install them into flight simulator for you.

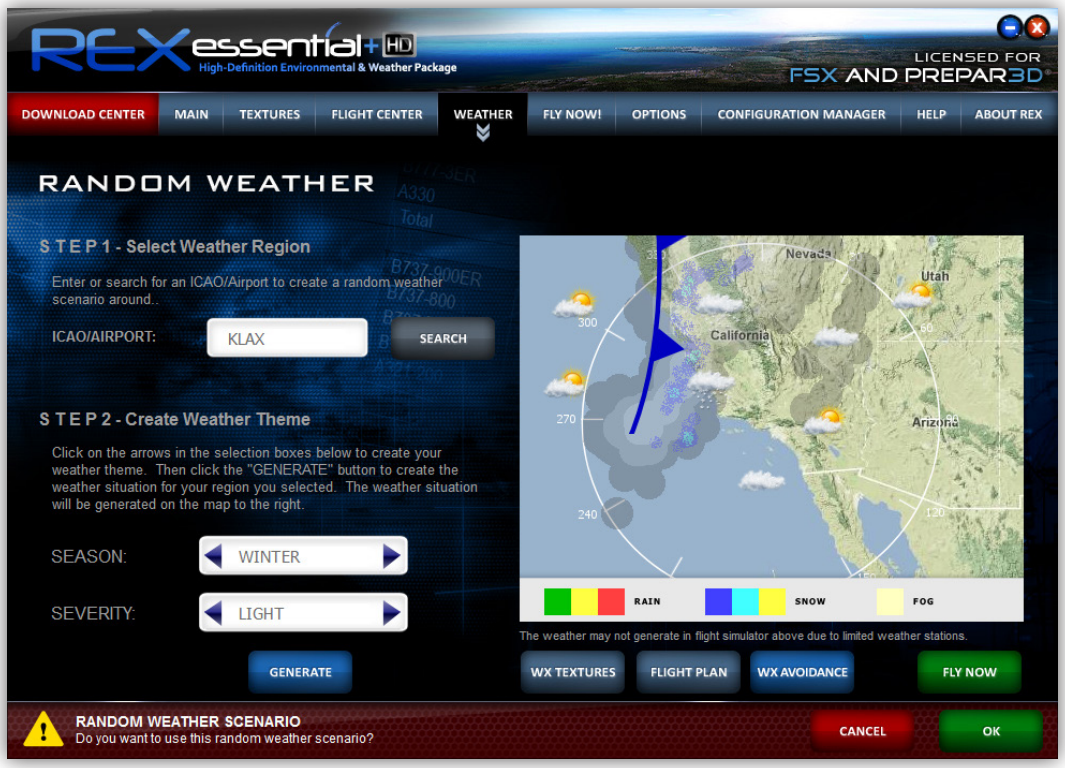
RANDOM WEATHER is accessed by selecting **USE REX RANDOM WEATHER THEMES**.

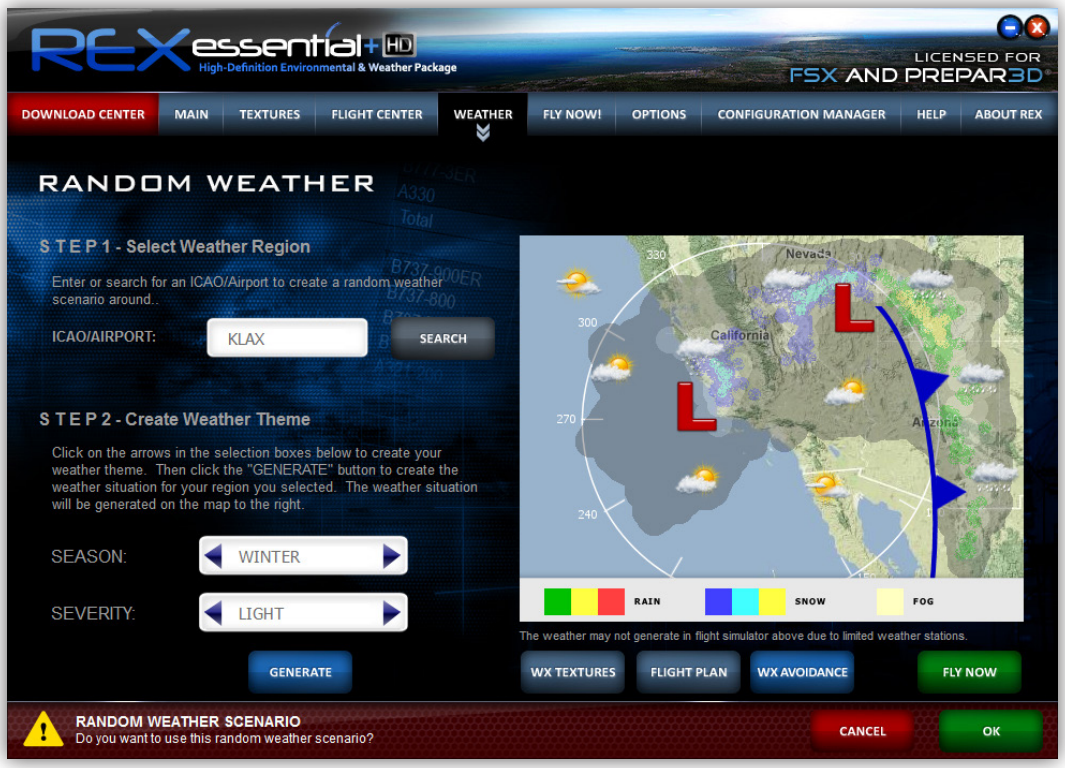
This screen is characterized by two halves; the left side which contains the steps needed to create random weather and the right side, which contains the map showing the generated weather as well as the **WX TEXTURES, WX AVOIDANCE, FLIGHT PLAN**, and **FLY NOW** buttons.

Type in the ICAO code of the airport or use **SEARCH**. Select the season desired from the **SEASON** selector and by selecting the severity of weather by the **SEVERITY** selector. Next, generate the weather by clicking the **GENERATE** button.

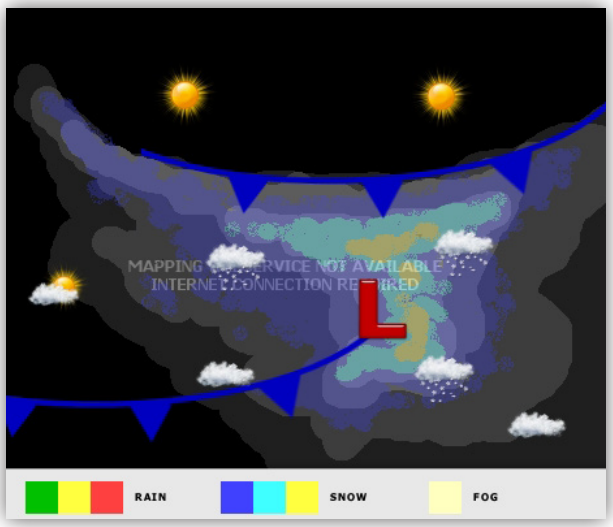
WX TEXTURES allows the program to install textures into flight simulator that best represents the chosen weather conditions. **WX AVOIDANCE** will open the **REX WX** screen as described earlier. The **FLIGHT PLAN** and **FLY NOW** buttons starts the flight as described previously.

SAMPLES OF THE RANDOM WEATHER ENGINE





RANDOM WEATHER ENGINE



IMPORTANT NOTE:

You may still use the random weather feature without an internet connection, however you will receive the screen as shown above. This screen says "MAPPING WEBSERVICE NOT AVAILABLE. INTERNET CONNECTION REQUIRED."

This does NOT affect how REX will generate and import weather into FSX/P3D.

SPECIAL NOTE: Because REX RANDOM WEATHER is stored locally on your hard drive, NO map overlays such as precipitation can be viewed on the WASys while in flight. This will change in future versions of REX.

ARCHIVED WEATHER ENGINE

In REX we offer you the ability to use archived weather (historic), providing archive data from both NOAA and VATSIM.

Archive data for upper level winds and temperatures aloft are also included. These historic records go back only so far, however we will be adding more years of historical data throughout the next several months.

To use archived weather, click the **WEATHER** button on the **MAIN** navigation bar. On the **CONFIGURE WEATHER LOAD PROCEDURE** menu, choose **USE ARCHIVED WEATHER DATA**, then select a weather date and time from the supplied drop-down lists. **NOTE: Time is GMT within the date field.**

Once acceptable data fields are selected, click **OK** and the RED **WEATHER DOWNLOAD PROCESS** bar appears on the bottom of the screen. This process downloads the weather you selected for that specific date and time. **Weather downloaded is world-wide so please be patient while REX parses this information.**

NOTE: Although the weather screen shows REAL-TIME WEATHER text on the application interface, REX is in fact using archived (historic) information when using ARCHIVED mode.

You may use this screen as described in the **REAL-TIME WEATHER** area of this user manual, or simply click **FLY NOW**. Upon clicking **FLY NOW**, REX will minimize, the WASys and flight simulator will open and the historic weather will be injected into flight simulator as per the date and time you selected.

DO NOT VISIT THE WEATHER PAGE IN FSX/P3D WHEN USING REX. REX WILL AUTOMATICALLY TAKE CARE OF WEATHER FOR YOU.

NOTE: REX is an open-ended application, there is no need to file flight plans or load textures to use the REX weather engine, etc. You may pick and choose what you require from the application, and at any time.

The interface between you and actually starting a flight using the REX weather engine is clicking the **FLY NOW** button.

When **FLY NOW** is clicked, REX is given the instruction to start its protocol. Most users are going to check the **Enable REX Weather Engine, Enable auto-start the REX weather engine and Enable auto launch the flight simulator** options.

Flight simulator will immediately start. A few seconds later the REX weather engine (REX WX) will start as evidenced by the appearance of the REX WX screen, and the REX main program will minimize to the task bar.

The REX WX is one of the most important and extensively used interfaces within the entire REX program. This system allows you to follow the weather along the flight path in real-time as well as allowing you to directly interface with the weather engine.

The image above shows the weather engine waiting to connect to flight simulator. Note the 4 buttons along the bottom, 2 zoom buttons with a + and - label and a **LOAD WEATHER** button. **LOAD WEATHER** allows you to force the weather engine to download and inject weather manually. **OFF/ON** shuts off the weather engine and closes the **REX WX**. The **REX WX** screen is moveable, however it cannot be re-sized.

Once flight simulator loads a flight, the weather engine will take a few moments processing and injecting weather. Above the 4 bottom buttons are interface displays that describe what each button's function is. To change the data displayed, click on the outside blue button adjacent to the data that you wish to view. Notice that the interface displays toggles between ON and OFF as each subsequent outer button is clicked, and the data overlays on the map change to reflect the choice. You may zoom in and out of the map via the + and - buttons, the mouse scroll wheel or simply double-clicking on the map.

BELOW IS A DETAILED DESCRIPTION OF EACH FUNCTION OF THE REX WX DISPLAY:

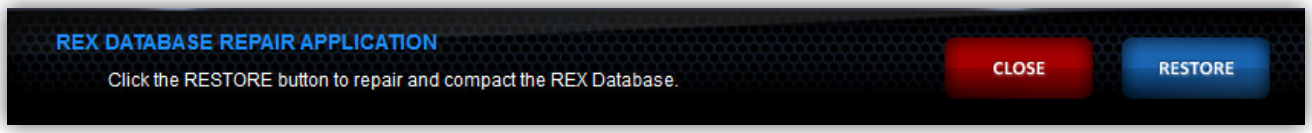
REX WX BUTTON	DESCRIPTION
Radar	Displays precipitation intensity, NOT cloud cover. Green represents light precipitation, Yellow represents moderate, Red represents heavy or severe.
Storm	Displays areas where possible thunderstorms are located with electrical discharges. Extremely helpful especially if a storm is not precipitating.
Turbulence	Displays areas of potential cloud turbulence. Green represents light choppy or light turbulence, Yellow represents moderate, Red represents heavy to severe turbulence.
Icing	Displays areas of potential icing or hail as in the case of thunderstorms. Dark blue is light icing, Light Blue moderate icing, Yellow represents severe icing or Hail.
Zoom +/-	Allow user to zoom in or out from current location.
ON/OFF	Ends the weather engine process and reloads the main REX interface.

WEATHER ENGINE (REX WX)

More options will appear simply by right-clicking on the frame of the REX WX weather engine. This allows you to set important parameters, which are summarized on the following table.

PARAMETER	DESCRIPTION
Load Weather	Forces weather to manually be injected into FSX/P3D. This will override any minimum altitude level set within the CONFIGURATION MANAGER.
Smooth Cloud Transitions	1) In Standard Weather mode, this causes the clouds to build up gradually, however you lose all other weather functions. It is more for effect than anything else. 2) In WXPLUS mode, this sets the rate in which weather changes within FSX/P3D to 5. This causes the weather to change dynamically as you fly.
Search Metar	Allows you to search for metar data from an ICAO within the weather database.
Opacity	Changes the REX WX gauge visibility to allow you to view behind the gauge while in-game and in windowed mode.
WX Download	When checked ON, this allows REX to continue to download latest metar and weather data in the background. When UNCHECKED, it turns off this process.
WX FSX/P3D Interpolation	Instructs REX to download all weather for every weather station within FSX/P3D from its servers to later be injected during the weather engine operations. Currently, NOAA and VATSIM only supply weather for approximately 50% of the actual weather stations within FSX/P3D. This feature ensures all weather stations receive weather.
WX Synoptic Interpolation	Instructs the weather engine to create custom weather stations over a distance, allowing the weather engine to fill in gaps in weather where it might be missing during flight. This is extremely useful when flying in desert areas or over oceans.
WX Micro Interpolation	Instructs the weather engine to create custom weather stations near the aircraft. This process allows the weather engine to utilize better smoothing techniques so sudden changes are not so rapid during takeoff, flight and landing.

PARAMETER	DESCRIPTION
WX 3D Smoothing	Instructs the weather engine to inject weather ahead of the aircraft while in flight, after the initial weather injection. This removes sudden jerkiness or changes during normal weather injection.
WX Engine Plus	Displays the WXPLUS mode as active if checked. If unchecked, STANDARD weather injection mode is enabled.
WX Refresh Region	Allows you to change the size of the weather flight region while in-game.
WX Refresh Balance	Allows you to set the weather injection speed. Using longer periods of time between injections reduce frame hits, but prolongs the interjects process. Likewise, decreasing the injection time increase frame hits, but reduces prolong injection periods.
Top Most	Sets weather gauge as top most screen. ONLY works when flight simulator is in windowed mode.
Minimize	Minimizes weather gauge to task bar.
Close	Closes the REX weather engine and re-opens the main REX interface.



The REX Database Tool is a simple utility used to optimize the database operations of the underlying core of REX Essential Plus/OverDrive.

This utility helps to speed up the program operations as well as reduce defragging of back end indexes and database pages.

To use, locate the file labelled **rexrepairdb.exe** located within the main REX Essential PLUS/OverDrive folder. MAKE CERTAIN to right-click this exe file and select **RUN AS ADMIN**. You will notice a small window as seen in the picture above. Simply click the **RESTORE** button. Please be patient, as this process will take a minute to complete. Once the database has been restored, you will be alerted that the process has been complete, and simply clicking **OK** within the prompt will automatically close the database tool.

! IMPORTANT NOTE:

After running this process, you will need to restore your user profile within the Configuration Manager to re-acquire your settings!

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REX Game Studios Beta Testing Team:
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